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ELM FRUIT FARM, 80 ACRES IN FRUIT.

CATALOGUE

OF CHOICE

PEDIGREE

SMALL FRUIT PLANTS

GROWN AND FOR SALE BY

G. H. & J. H. HALE,

South Glastonbury, Conn.

Season 1889.

Telephone in our office connecting us with the whole Southern New England District. Send all telegrams care Telephone. Hartford. Express Office and R. R. Station, Rocky Hill, Conn. Valley R. R. P. O Money Order Office, Hartford. Our P. O. Address, South Glastonbury. All Hartford County, Conn.

JANUARY 1, 1889.

69TH SEMI-ANNUAL FINANCIAL STATEMENT

OF THE

PHŒNIX

Insurance Company,

OF HARTFORD, CONN.

At Close of Business, December 31, 1888.

CASH CAPITAL, - - $2,000,000.

Assets Available For Fire Losses,

$5,061,247.17

AS FOLLOWS:

Cash on Hand, in Bank, and with Agents,	$566,677 07
United States and State Stocks and Bonds,	149,300 00
Hartford Bank Stocks,	582,150 00
Miscellaneous Bank Stocks,	330,739 00
Corporation and Railroad Stocks and Bonds,	2,255,370 00
County, City, and Water Bonds,	103,510 00
Real Estate,	231,594 10
Loans on Collateral,	33,922 50
Real Estate Loans,	785,550 00
Accumulated Interest and Rents,	22,434 50
TOTAL CASH ASSETS,	**$5,061,247 17**

LIABILITIES.

Cash Capital,	$2,000,000 00
Reserve for Outstanding Losses,	246,175 25
Reserve for Re-Insurance,	1,642,656 49
NET SURPLUS,	1,172,415 43
TOTAL ASSETS,	**$5,061,247 17**

Total Losses Paid since Organization of Company,

$24,085,463.63.

H. KELLOGG, President, D. W. C. SKILTON, Vice-President.
J. H. MITCHELL, 2nd Vice-President. GEO. H. BURDICK, Secretary.
CHAS. A. GALACAR, Ass't Secretary.

H. M. MAGILL, General Agent Western Department, Cincinnati, Ohio.
THEO. F. SPEAR, Assistant General Agent Western Department, Cincinnati, Ohio.
A. E. MAGILL, General Agent Pacific Department, San Francisco, Cal.

AGENCIES IN NEARLY EVERY STATE AND TERRITORY.

Elm Fruit-Farm Catalogue and Price-List.

TERMS CASH IN ADVANCE.—Goods are sent C. O. D., if desired, providing one-quarter of the amount is sent with the order; bnt this is a somewhat more costly mode of remitting.

THE PRICES of this catalogue abrogate previous quotations. The prices affixed are for the quantities specified, but half-dozen, fifty, and five hundred of a variety will be supplied at dozen, hundred, and thousand rates respectively, *unless otherwise quoted.* Single plants will not be supplied at dozen rates — where not quoted they will be furnished at DOUBLE the rate per dozen.

ALL PACKING is executed with the utmost care. Special pains are taken to pack *lightly*, thereby reducing the expense of transportation to a minimum. All goods are packed free of charge. Everything is carefully labeled.

Remit by registered letter, P. O. order on Hartford, or draft on New York.

Should we be out of any variety ordered, we will substitute others of equal or greater value, unless otherwise ordered.

PLANTS BY MAIL.—Parties living at a distance from railroad or express office often find it a convenience to have plants sent by mail. ***We pack safely, so as to go to any part of the United States,*** at the following rates: Strawberries at the price per dozen, and Grapes at rates of single vine, free; Strawberries at 15 cents per 50, 25 cents per 100; Raspberries and Blackberries, 15 cents per dozen; Gooseberries and Currants, one year, 20 cents per dozen.

SHIPPING FACILITIES.—Unless otherwise ordered, we ship all plants direct from here, by ***Adams Express.*** However, as we have direct steamboat connection daily with New York City, our forwarding agent there can reship all goods promptly ***by any of the leading Express Companies*** or Fast Freight Lines, at lowest rates.

FAST FREIGHT.—Early in the season, when the weather is cool, plants can often be sent quite cheaply by fast freight; but we take no responsibility in such cases, as there is often great delay.

Dip the plants, as soon as received, in water, and bury the roots in moist, shady ground, till you are ready to set them out.

PEDIGREE IN PLANTS.

Fully appreciating the importance of ***PEDIGREE IN PLANTS*** as well as in animals, we have for years made a most ***careful selection of all stock for propagation,*** and we now offer for sale a stock of plants which we believe to be equal, if not ***superior, in health, vigor, and productiveness, to any in the country.*** *This is a subject which every fruit-grower would do well to consider before purchasing cheap stock.* Some men will spend much time and money to properly prepare the ground, and then stock it with inferior or almost worthless plants, simply because they can buy them cheap.

The old and worn-out varieties (that have served us so well in the past) were being rapidly discarded *to make room for the newer and more profitable varieties,* and that all intelligent and progressive fruit-growers are now testing (in a small way) all new and promising varieties as soon as obtainable, thus keeping fully abreast of the times, and so be *ready to reap the greater profit* that comes from being the first in any market to introduce new and improved sorts of real value, for in fruits, as well as in every other business, the *greatest profits are made by those who lead,* or keep very near "the head of the procession." There is neither fun or profit in following along two or three years behind and simply imitating those who have gone before.

It costs a little more to grow the best and thus lead the market, but the profits are far greater in proportion. We have in mind now a number of our customers who, some years ago, paid us $100 per 1,000 for new Raspberries, and $80 per 1,000 for some of the best new Strawberries, when first offered, and by so doing have more than doubled their incomes for fruit alone, to say nothing of plants sold to neighbors, and many more will do the same thing in this and future years, by planting some of the more promising new sorts, such as Jewell, Jessie, Miami, Pineapple, Bubach or other very promising Strawberries; Earhart, Carman, Scarlet Gem, and Golden Queen Raspberries; Fay and Victoria Currants; Lucretia Dewberry, or others of like promise.

"The best is good enough for us all."

MONEY IN SMALL FRUITS.

The following we extract from various lectures on the subject delivered the past winter by our Mr. J. H. Hale, before the institutes of Wisconsin and New York, and before the Maine Pomological Society.

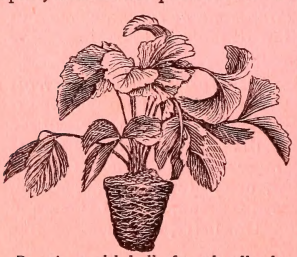
The *Country Gentleman*, of Albany, N. Y., in its full report of the annual meeting of the New York Agricultural Society said: "The talk on small fruits was by an authority of the highest rank, Mr. J. H. Hale, South Glastonbury, Conn."

My subject has a very pleasing sound, for who of us tillers of the soil does not jump at the chance of any honest industry that there is money in. Not that the gathering or accumulating of money is or should be the chief end of life, yet we all know and appreciate its value in securing for us the comforts and necessities of life, and should neglect no opportunity to obtain enough of this world's goods that our families may not be denied these things.

"Money in Small Fruits" would indicate the planting and cultivating of these choice gifts of nature was to be carried on for the sale of these products, and to this part of the question we will now turn our attention. Of course you will understand that the term small fruits applies to strawberries, raspberries, blackberries, currants, gooseberries, etc., and not to small or second-class apples, pears, plums, etc. It may well be called one of our infant industries, for it is within the memory of most of the middle-aged men here when the first berries were offered for sale in any of our markets, while the principal development of the business has all been within the past twenty years, and it is really only within the past ten years that all the small towns and villages of the country have begun to have anything like a fair supply, while there are yet hundreds of towns and villages that are not one-half supplied, and those that appear to be well furnished now would use many more if better fruit were offered in a more attractive style. So there is a chance yet for new beginners, if they are willing to live up to the requirements and demands of the times. However, before attempting the business it is well to know that not all cultivators of berries have found money in small fruits; in fact, there have been some very serious failures. The requisites for success are: *First*, a love of fruits for their own sakes — a pleasure in their culture; *Second*, a soil fairly well adapted to them; *Third*, good local markets, or convenient access to railway lines which center in market towns; *Fourth*, extra laborers near enough at hand to be called on in case of emergency in cultivating and gathering the fruits promptly and economically when ripe. Having made sure of these things, if one is starting in the business, care should be taken not to plan for planting more than can be cared for in the most thorough manner or sold to good advantage.

STRAWBERRIES.

Of the various fruits, strawberries will receive first attention, as it is from them that the quickest returns may be expected. Any good corn or wheat land will produce fine strawberries, but to secure the best results it must be very rich in natural fertility, or made so by the application of manure in some form. My own experience has been that any soil rich in organic matter, or commercial fertilizers rich in nitrogenous matter, produce too much foliage growth for the most profitable returns in fruit, and my best crops have come from a sandy or loamy soil where commercial fertilizers had been used containing a large percentage of phosphoric acid and potash, and lacking in nitrogen. Pure, fine ground bone and wood ashes, or muriate of potash, have proved to be the cheapest and best forms in which we could buy these manures, always applying them on the surface of the ground after ploughing, and working them in with a harrow before setting the plants, using from 1,500 to 2,500 pounds of the bone and from 500 to 800 pounds of the potash per acre, or its equivalent in unleached wood ashes. Land that has been in cultivation for a year or two previous is best. Plough this as deeply as possible early in the spring, then harrow it over and over again till a perfect seed bed is formed. An extra day or two spent by a man and team in a thorough preparation of the land will usually show itself in ease of cultivation later in the season. When the ground is thoroughly prepared, with a corn marker check of rows three feet apart, and set the plants from twelve to twenty inches apart in the row according to the vigor of the variety. *Early* spring is the best time in the whole year to plant, yet where one has valuable land that must produce two crops in one season, early vegetables can be grown and cleared from the ground by August 1st, and the ground planted with pot-grown plants that will get well established before winter, and produce a full crop of fruit the next June. These plants can be grown by plunging two and one-half inch plant pots in the ground along the rows of spring set plants, and so training the runners that the new plants will root in them. Ordinarily this will take about three weeks, so if we begin the first of July, we shall have a good stock of plants by August 1st. If pistilate or imperfect flowering varieties are used, plant every third row with some strong perfect flowering variety that blooms at the same time. Too many make the mistake of planting



Pot plant with ball of earth adhering after being removed from pot.

a greater number of rows of pistilates before adding the perfect bloomers to fertilize them, and also make the selection of varieties without regard to the time of blossoming. Cut off all blossoms or fruit stalks as soon as they appear, and as soon as growth is well started, begin the summer cultivation, which should be kept up once in two or three weeks all through the season till weed growth is stopped by freezing in the fall. On my own plantation the last hoeing is usually done in October.

Having been growing berries for market twenty-five years, and testing the various systems of hills, narrow rows, and matted rows, as well as studying results obtained by these methods in all the northern states, I am satisfied that the narrow row system is, on the whole, the most profitable. By this method each of the spring set plants is allowed to root a few of their first runners along near the line of the row, after which all the runners are cut off as fast as they appear. The advantages of this plan are that more of the work of cultivation can be done by horse power, as in hill culture, and yet there are always young plants enough to form one continuous row, even if a few do get destroyed in any way. There is abundant room for sunlight and air to reach all the berries when ripening, which assures larger, better colored, and higher flavored berries than can be grown in matted rows, also firmer fruit that stands transportation and sells for higher prices. There is another advantage in this plan—it costs but little to clean out a bed of this sort after fruiting, and so renew it for another season's crop at little expense, while in matted-row culture it is seldom profitable to continue a bed in fruiting more than one year. When the ground is frozen in the fall, cover the whole field lightly with a mulch of old hay, straw, corn stalks, or any coarse material that will protect the plants against the alternate freezing and thawing of late winter and early spring. This need not be removed, but when growing time approaches pass along the rows and partially uncover the crowns of the plants, that the new growth may push through it; thus the mulch can remain to keep the ground moist and the fruit clean during the ripening season. This question of moisture at ripening time is a most important one. Many a field of strawberries that has received fairly good care through the whole year has failed to produce profitable results, simply for the want of sufficient moisture just at the fruiting season. Therefore, where it is possible without too great cost, irrigation should be provided if the highest results are to be obtained.

Where the markets are large enough to readily handle year after year the product of five or more acres from one farm, I am satisfied that an investment of from one to two thousand dollars for irrigation purposes would pay handsomely. However, as such an amount of capital cannot well be so invested by many planters, and cheaper means of obtaining an abundant supply of water are not to be had, except in rare cases, therefore, I urge a thorough preparation of the soil for planting, and frequent cultivation, that the plants may root deeply and thus be able to withstand drouth, which comes so often just when we can least afford it.

In gathering and marketing the crop there should be one picker for each thirty or forty quarts of the daily product, and a superintendent to every fifteen or twenty pickers to assign them their rows and inspect their work from time to time to see that they keep to their rows and do not trample on the vines, pick the fruit clean, and grade it according to the demands of the market to be supplied. Upon the thoroughness of this superintendent's work will depend a large measure of the success of the business. For keeping tally with the pickers, the best plan I know of is to give each a picking stand or rack of a size suitable to hold four, six, or eight quart baskets. This should be plainly stenciled with the number of the picker, all of whom should be numbered. On commencement of each day's work the picker is given this rack with its full quota of baskets, no more or less, and is required to return them, either full or empty, to the packing shed, when a daily account ticket is given. This ticket is of tough check paper, $3\frac{1}{2} \times 1\frac{1}{2}$ inches; across the top is space for name and number of picker, day and date of the week; then five upright columns of eight figures, representing 1, 2, 3, 4, and 8 quarts, or 144 quarts in all—as much as even good pickers are likely to pick in one day. From this is punched, with a conductor's punch, number representing quarts of berries brought in, and given to the picker, who is then given a fresh lot of baskets, and returns to work and continues in this way till the day's work is done. Then the daily ticket is taken up and the number of quarts it represents as having been picked is then punched out of the weekly ticket, which is of the same tough check paper, size $5\frac{1}{2} \times 2\frac{1}{2}$ inches. This ticket has space for name and number of picker, amount paid per quart, and date of the week on which it ends, and six columns of figures for a record of the berries picked each working day in the week, column for sum total and cash paid on Saturday—date of ending. These tickets are carried by the pickers through the week, a new daily ticket given each morning and taken up at night; then on Saturday, when we pay off, we take up the weekly tickets and file them away, and thus in a simple form have a complete record of all berries picked, and in case of loss of a weekly ticket by a picker before the end of the week, we have the daily ones on hand from which to make a new one without loss to any one, thus there is no chance for a picker to lose pay, or for us to pay only just what is due.

Picking, except for local markets, should not begin till the dew is off in the morning, and not continue through the heat of the day, if pickers enough can be had to gather the crop without it—from four o'clock until dark is much the best time. The packing shed should be a cool airy place, convenient to the field, and here all the fruit should be taken as fast as gathered. A general inspection of the fruit should be given by the person in charge, and packed according to its grade, each variety by itself. Baskets or boxes should be new and clean, and made of the

whitest wood that it is possible to obtain. All should be as rounding full as can be conveniently packed without injury to the fruit. There should be no inferior fruit put in, and that in the bottom and middle of the package should be just as good or better than that on top. Having made sure of this, these should be packed in clean, bright crates or boxes, and of the size required by the markets where the fruit is to be sold. We in the east mostly use the square quart American baskets, well ventilated at sides and corners, and pack them in thirty-two or forty-eight-quart crates that are also well ventilated at sides and ends, and are returned when empty. In some sections of Pennsylvania, Ohio, Indiana, Illinois, and Missouri, they use shallow boxes, about 14 × 20 inches, called a tray; into these they turn loosely sixteen quarts of berries, and packing four of these, one above the other, and a thin cover over the top one, cleats nailed on the sides to hold them together, makes a "stand" containing sixty-four quarts. In the market the berries are scooped up and measured out by the quart, more or less mussed, with a shrinkage of about twelve per cent., and yet this abomination appears satisfactory to those that have not learned of any better way. Surely no money can be made on small fruits handled so.

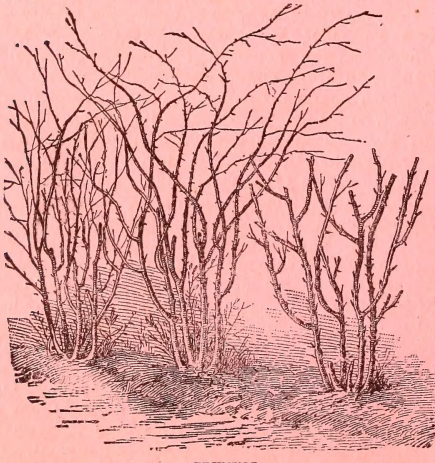
In the west and southwest most of the fruit is sent to market in what is known as the "Hallock," a box five inches square, two and one-half inches deep, bottom elevated half an inch so as not to crush the berries below, and no slit or hole for ventilation. These are packed three deep, without any slots between them, in cheap twenty-four-quart gift cases, and sell with the fruit.

I am satisfied, after several years of careful study of the markets, both east and west, that we are ventilating our baskets and crates too much, and by allowing so much air to reach our berries we are not keeping them in good condition as long as we might. Of course when berries are picked in the heat of the day and packed at once, they must go in ventilated baskets and crates; also, if wet from rain or dew they will dry off and keep longer when well ventilated; but I am clearly of the opinion that if we pick our berries in the cool of the day, or if picked when warm, we will at once send them to a cooling room, and, when thoroughly cooled, pack them in tight boxes or baskets in crates where the air will not directly reach them, berries will keep twice as long and in better condition than they do now in what we call our best ventilated packages.

It is usually good policy to conform to the customs of the market whose trade we seek. However, where we find these that have not attained a high standard, it may be well to humor them to the extent of sending second-class fruit in the old style, and market our best in the most approved packages attainable. It will attract attention to our goods, and win favor and custom, especially if we guarantee every package to be as represented. We cannot afford to spend eleven months of careful cultivation of our fruits, and then accept inferior prices, simply for the want of a little care in the details of marketing.

RASPBERRIES.

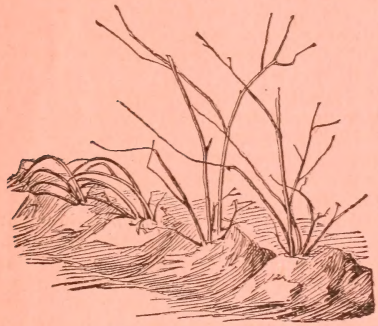
Raspberries, red, black and yellow, following strawberries as they do, should next receive attention from one who is after the money in small fruits. These require much the same soil as strawberries, except that they may be grown with profit on land that is far richer in nitrogenous matter. The red varieties may be planted either in spring or fall, but the cap varieties, or any propagated by layering of the tips, should always be planted in spring. Ground should be as thoroughly prepared as for strawberries. For years I have planted in rows, seven or eight feet apart, according to the vigor of the variety, placing the plants two and one-half to three feet in the row, but I am now satisfied that larger, firmer, and better berries can be grown by planting in check rows, five or six feet apart, giving the plants more sunlight and air, and admits of more use of the horse and cultivator, thus securing better culture at less cost, while the yield of fruit is fully as large as from hedge rows. Cultivation should begin early in the season, and be frequent and thorough through the summer months, so as to stimulate a rapid growth early in the season, giving ample time for maturity of wood during the fall. The new growth should be pinched back when fifteen to eighteen inches high. This will cause a strong growth of lateral branches, which should be allowed to grow at will, leaving all further trimming till early the following spring.



PRUNING.

Some of our best market varieties, such as Cuthbert and Marlboro among the red, Caroline and Golden Queen—yellow, and Carman, Springfield, Earhart, and Souhegan—black caps, are hardy enough when well grown to withstand the frosts of most of the northern sections of the United States with but little injury except now and then a winter when they get badly nipped; but as we are after the money in small fruits, and the whole profit in the business comes from little things, it is not wise anywhere north of latitude forty-two to attempt to let them go through the winter

without some protection—plenty of snow will answer if you could be sure of it; however, the present winter has taught us that it is not best to depend on that, and as the next best and cheapest material is earth, plans should be made to cover them late in the fall, just before the approach of winter. This can be done cheaply and rapidly by two men, one with heavy gloves to bring the canes as close together as possible, and carefully bend them down, lengthwise of the row, and the other throwing a shovelful of earth at the base on the side towards which they are being bent will prevent them from breaking, then a few shovelfuls of earth on the tips will hold them in place, and they can pass on to the next plant, and so on over the whole field, after which each can take a shovel and complete the covering, the whole at a cost of from five to eight dollars per acre.



LAYERING FOR WINTER.

Where the rows are far enough apart to admit of it, after the plants have been bent over and the tips held down with earth, put on with a shovel, the principal covering can be done with a team of fast-walking horses and a plow that will throw the soil well, and so reduce the labor cost somewhat. This is a sure and safe method of insuring the crop as far as the extreme frosts of winter might affect it. As soon as frost is out and ground dry enough in the spring, uncover, straighten up the plants, thin out and shorten in the laterals from eight to fifteen inches as may be required to form a well balanced bush. Thorough cultivation may be given up to blooming time, after which it is not well to stir the soil till after fruiting. The gathering and marketing should be on the same general plan as for the strawberries, except that half-pint and pint boxes or baskets should be used in place of quarts for the most delicate varieties.

BLACKBERRIES.

Blackberries should next receive attention, and as they are generally inclined to make too much wood growth, it is well to select land of moderate fertility. The high bush varieties may be planted either in spring or fall, the latter being the best, planting the same as stronger growing raspberries, while the dewberries or trailing blackberries should always be planted in the spring in rows ten feet apart, plants three to four feet in the row, and allowed to form a matted row. Close pruning and winter protection are essential to the highest success in blackberry culture, as with raspberries.

GOOSEBERRIES AND CURRANTS.

Gooseberries there is only a limited sale for, but for currants the demand is still far greater than the supply. Strong, rich, fairly moist soil is best for the latter. They may be planted at any time after their leaves drop in the fall, or very early in the spring, in check rows four and one-half to five feet apart. The growth is all made the first two months of summer. It is, therefore, essential that the cultivation be thorough and liberal early in the season, if we wish to stimulate the best wood growth. The first two years only enough pruning will be required to form a broad open-headed bush, with bearing wood evenly distributed, but in later years a pinching back of all the new growth when two or three inches long will tend to develop a wondrous formation of fruit spurs and buds. This has not been the general practice, but is practically a new point that is worth making a careful note of even by those having only a few bushes.

In a general way I have now outlined some of the main features of small fruit culture, and now lay down a few general principles which must be lived up to if you are to find the money in small fruits: *First*, thorough culture; *Second*, the best possible shipping packages; *Third*, honest packing of fruit from top to bottom, yet making as fine appearance as possible.

As to varieties, that is a local issue, and it is best to study that out for yourself. Study the market that you are to supply, then visit growers in your neighborhood, county, and state, and learn from them what are the well tested and approved varieties, and make the largest share of your plantings of these. On my own fruit farm of some eighty acres the old standard Crescent, Windsor, and Downing strawberries, Cuthbert and Souhegan raspberries, Snyder blackberry, and Victoria currant, have always been profitable. Jessie, Bubach, Pineapple, and Miami strawberries, Carman and Scarlet Gem raspberries, Lucretia dewberry, and Fay currant, among the newer varieties, are wonderfully fine, and are likely to surpass many of the old ones, and there are many others that are fast coming to the front, but I am not here to advertise new fruits. The world is improving all the time, and so are our small fruits, yet do not rush headlong into highly praised new ones. Test them all in a small way and you will surely find some that are just suited to your soil and market, thus obtaining for yourself an advantage not possessed by others. The man who is always looking for something better is the one who makes the most out of the old varieties, as he gives them the best culture. His neighbors may think he fools away time and money on a little trial plot of new varieties, yet out of many failures comes one success that pays for all and places him way ahead of all competitors.

With culture such as I recommend, strawberries should yield four thousand quarts per acre, sell in your markets at about eight cents per quart, or a net profit of one hundred and fifty dollars per acre. Raspberries, about three thousand quarts per acre, at ten cents per quart, will net about the same profit as the strawberries. Blackberries should give rather more quarts than the raspberries, but selling for less price, the profit is not so great.* A good product of currants is from fifteen hundred to two thousand quarts per acre, and the price, I suppose, here about six or eight cents, but as a field of currants may be kept in fruiting for an indefinite number of years, it is one of the most profitable of all the small fruits, as the cost of culture is so much less than any of the others—strawberries having to be renewed every two or three years, raspberries and blackberries every five or six for the best results, although there are many fields now eight or ten years old that are yearly giving profitable returns.

So much for a hurried run over the field with an eye to producing small fruits for market, but to get at bottom facts as to money in small fruits, the family garden is the place to begin and end if we are looking for greatest results. Every farmer should and will have, when he awakens to a full sense of the duty he owes to wife and loved ones, a small fruit garden of half an acre or more in proportion to the size of his family and his real interest in their welfare, for right here he has a home market that will take, at high prices, every day in the week, quarts upon quarts of the choicest products of his plants.

The importance of fruit as an article of diet is at last beginning to be appreciated. Every dollar expended on the fruit garden will save at least two dollars in butchers' and doctors' bills, and the sooner we understand it the better. Three times a day, the whole year, our tables could and should be supplied with these refreshing and health-giving fruits of our own growing. How much better for the boys and girls at school to have a dish of fresh berries, a cluster of grapes, or a cup of raspberry jam and good nutritious bread and butter than to have the mother slave herself to death from day to day in preparing some health-destroying compound of grease and spices in the shape of loaf cake, doughnuts, or mince pies, to tempt the appetite and destroy the stomach, as well as a lot of good flour, eggs, and butter that might be used to give health and strength rather than destroy it. I note with pleasure in my travels about that fruit growers and such farmers as have plenty of fruits very seldom have pastry of any kind upon their tables, its place being supplied with fruit, either fresh or canned, and since the improved method of canning that has been adopted in the past few years, it is possible to have fruit at any season of the year, approaching in flavor that fresh from the vines—red raspberries retaining their flavor best of all.

The taste for fresh fruit is growing fast, and while many of our farmers know that they ought to supply it to their families, they still fight shy of planting and say they can buy what berries they want cheaper than they can grow them, yet they will buy one-hundredth part of what their families would use if it could be had for the picking. My own family is not a large one, yet we manage to dispose of from six to ten quarts of strawberries, raspberries, currants, and blackberries per day through June, July, and August, and the next three months we worry along on peaches, pears, and the product of one hundred and sixteen grape vines.

A friend of mine having a half acre city lot bought his fertilizers, hired the land plowed, planted thereon twenty-six dollars worth of plants, kept an account of all money paid out for labor for five years, and charged the family at market rates for all fruit consumed, told me that this half acre paid him a profit of one hundred and sixty dollars annually, and such a half acre should be on every farm. Wife and loved ones will appreciate it. Tell the children that on that half acre lot, back of the barn, or not far away from the house, there are twenty bushels of strawberries, ten each of red and black raspberries, five bushels of currants, ten bushels of blackberries, five of Lucretia dewberry, a bushel of gooseberries, a ton of grapes, a wagon load of delicious canned fruits. How their little eyes would open, and with what shouts of joy and gladness would they rush out after such a rich treat, and all are there, even if the little ones do fail to find them on some farms.

Farmers, open your eyes! Why be blind to the fact that these delicious articles of food and home comforts may be found on many good half acres of your farms, and it only requires a light expenditure of money, and some intelligent labor to unfold them? All are there, and to be had for the asking. Will you accept them? If so, you will see that there is health and happiness, as well as money, in small fruits.

J. H. HALE,
SOUTH GLASTONBURY, CONN.

*Not wishing to encourage hopes of great crops that might not be realized, I made these low estimates, yet with such culture the yield will often be twice what I have named, and in some rare cases almost three times as great.

Our main business is that of growing fruit for market. We are not simply in the nursery business, selling untested plants. All the varieties we offer are planted and tested on our place, for the purpose of finding the money in small fruits on our own farm. Hence parties leaving the selection of varieties to us can depend upon being intelligently served.

"BIG BERRIES AND LOTS OF THEM."

Whether we are growing them for family use or for market, the question is, *how* can we have them, and from years of experience, while we know that oftentimes satisfactory and paying crops can be grown under almost any system of culture and on any soil, yet to have "big berries and lots of them," we must give up our old and slipshod methods of culture and give only the best and most thorough care from beginning to end. This does not necessarily mean being at any great expense either in cash or extra labor; *it simply means doing the very best we can with the means at our disposal.*

For general cultural directions, see talk on "Money in Small Fruits" on preceding pages. Whenever possible, even for a small family supply, plant in long rows, far enough apart to admit of horse and cultivator doing most of the work of cultivation; but in small gardens, where all the work *must* be done by hand hoeing, plant 15 inches apart each way, and keep all runners off, and allow the plants to form heavy, bog-like hills; and after midsummer a heavy mulching may be put on between the plants to keep down the weeds and save the trouble of hoeing. This can be added, too, for winter protection, and early the following spring uncover the crowns of the plant only, and the new growth can push up through. The heavy mulching over the ground will make a carpet to prevent weed growth; and to keep the ground moist and the fruit clean, remove this after fruiting, and, by hoeing often during July and August, the plants may be put in condition for another year as before.

BI-SEXUAL OR PERFECT BLOSSOM.

PISTILATE OR IMPERFECT BLOSSOM.

The Fertilization of Blossoms.

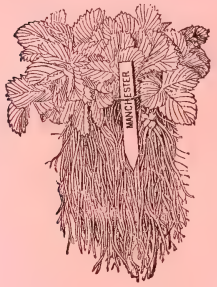
The blossoms of most varieties are perfect or bi-sexual, except those marked (P), which are destitute of stamens, and are termed pistilate or imperfect flowering varieties, and must be planted near some perfect flowering sort, or they will produce little or no fruit. Crescent, Bubach, Jewell, Windsor Chief, etc., are of this class, but are among the most productive when a few plants of such varieties as Wilson, Downing, May King, Sharpless, or other perfect flowering ones, are planted in the same field near them.

VARIETIES AND PRICES.

For some years past there has been such a rivalry among some plant dealers that prices of Strawberry plants have been cut so low that the only possible way any profit can be derived from the business is by growing and handling plants in such a careless, slovenly manner that they are seldom satisfactory and often worthless when received by the planter. We have never been in sympathy with this class of business, and, in offering the following list, we have aimed to make fair prices that would give us a living profit and admit of our growing and handling our plants in a manner that will give entire satisfaction to our customers.

We will send Strawberry plants at dozen rates by mail, postage paid, but at 100 rates purchasers must add 15 cents per 50 and 25 cents per 100 to prepay postage.

The prices quoted are for young plants of the past season's growth, having an abundance of fibrous roots (as shown in cut), well trimmed, with roots nicely straightened, and tied in bundles of fifty (as indicated in cut). No old plants are ever sent out.



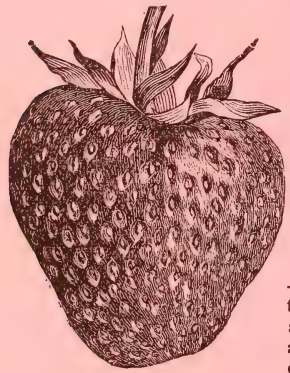
PLANTS BUNCHED.

OLD PLANT.

YOUNG PLANT.

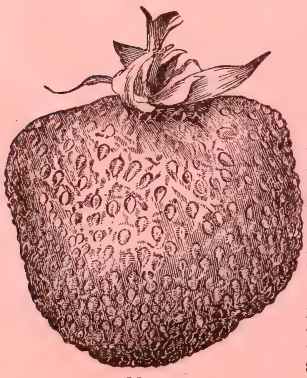
WILSON'S ALBANY.—We have for years grown a small bed of this old standard sort, each year making a new planting from selected pedigree stock, and thus keeping up the old-time vigor of this popular variety. It still continues very productive of medium-sized berries, dark glossy red in color, quite acid till fully ripe, when it has a rich, sprightly flavor not found in many varieties; one of the best for transportation to distant markets. To those who wish to renew their stock of the old Wilson *true*, we offer some guaranteed stock. 25 cents per dozen; 75 cents per 100; $5 per 1,000.

CRESCENT SEEDLING (*P*).—A light, slender plant of healthy, rapid growth; it makes runners almost too freely, and, unless care is taken, the plants crowd so thickly together as to produce small, inferior fruit; well grown; the berries are of medium size, bright scarlet color, and fair quality; has been aptly called "the lazy man's berry," as it is always sure to produce fruit even when all cultivation is neglected. 25 cents per dozen; 75 cents per 100; $3 per $1,000.

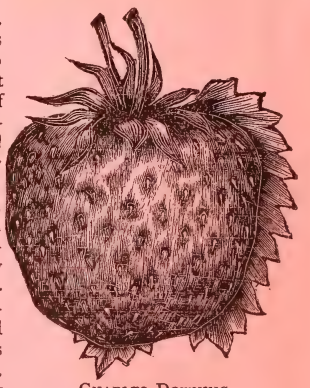

MAY KING.

MAY KING.—A healthy plant, free runner, and moderately productive of bright scarlet berries; perfect form, fine quality, and *one of the earliest to ripen.* This should be in every market or family collection, as it is not inclined to run small after the first picking, as does the Crescent and some other extra early varieties. 25 cents per dozen; 75 cents per 100; $4 per 1,000.

KENTUCKY.—A tall, rank grower, somewhat inclined to rust; is, however, a valuable late variety for light soils, moderately productive of large conical berries; pale scarlet color, soft and delicate in texture, and of rich sub-acid flavor. 25 cents per dozen; 75 cents per 100; $5 per 1,000.


MINER.

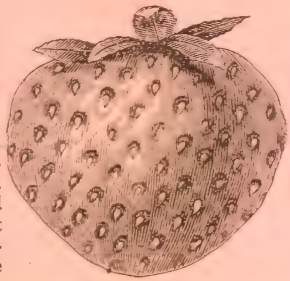
CHARLES DOWNING.—One of the old standard sorts that, from 1880 to 1886, was so affected by the rust or leaf blight as to be almost driven out of cultivation. The last two seasons it has rusted but little, and is once more being extensively planted. Moderately productive of medium-sized berries, pale scarlet color, often almost white on the shady side, pleasant, sweet flavor that is very pleasing to most tastes, although it is not a highly-flavored berry. It is a general family favorite and commands high prices in all our markets. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.


CHARLES DOWNING.

MINER.—A reliable standard sort, either for family use or for market; healthy, vigorous plant, productive of medium to large berries, somewhat resembling the Downing, only a little darker in color, larger, with the surface of many of the berries somewhat corrugated. It is of pleasant, sub-acid flavor, but is quite soft, and will not bear transportation to any very distant market; but for the home garden, or near-by fancy market, it is sure to give satisfaction. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.

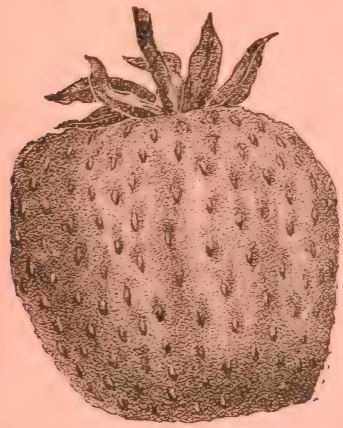
JEWELL.

JEWELL (*P*).—A native of Connecticut; makes so few runners that it is hard to propagate it, yet when we do get plants, planted in rich, deep soil and given the highest culture, they make wondrous big hills and produce *enormous crops of very large berries*, of deep glossy scarlet color, that make a most attractive appearance on the table or in the market; is of little value on light, sandy soil. 50 cents per dozen; $2 per 100; $15 per 1,000.



MANCHESTER.

MANCHESTER (*P*).—A moderately vigorous plant that on sandy soil and in some seasons is inclined to rust; when it does not it is one of the most productive of large to very large berries; of perfect globular form, uniform size, pale scarlet color, and good quality, and as they hold their size well up to the last picking, it is one of the most profitable market varieties. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $5 per 1,000.



BUBACH.

BUBACH (*P*).—Strong, rampant grower, like the Crescent, only making plants and foliage of twice the size; healthy and free from rust; *very productive* of large, bright scarlet berries, rather soft, and of fair quality; ripens early, and succeeds either on light or heavy soil; a valuable market variety. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.

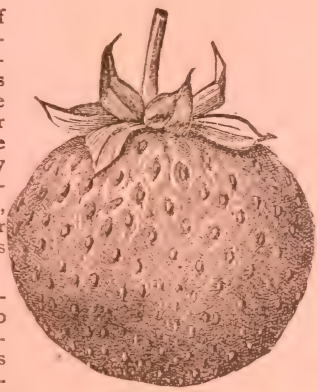
GOLD (*P*).—Recently introduced by the Connecticut State Pomologist; plant lacks in vigor of growth; is fairly productive of medium to large berries of *very superior quality;* it is reported to be of great value on rich clay soils. 50 cents per dozen; $3 per 100.

MAMMOTH.—A fairly good plant on light soil and a strong and healthy grower on a deep rich soil; productive of very large berries. Some wonderful stories are told of enormous berries that have been obtained from this variety the past year, and it is likely to be planted by all who are striving for exhibition berries. 50 cents per dozen; $2 per 100.

IRON CLAD.—Very strong plant, and, being one of the earliest to bloom, and having very strong staminate blossoms, it is of great value for planting with the early imperfect blooming varieties, such as Crescent, Bubach, etc., as it is the best we know of to fertilize their first blossoms, and thus make sure of early fruit. It is moderately productive of medium-sized, scarlet berries, conical in shape, firm, and of fair quality. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.

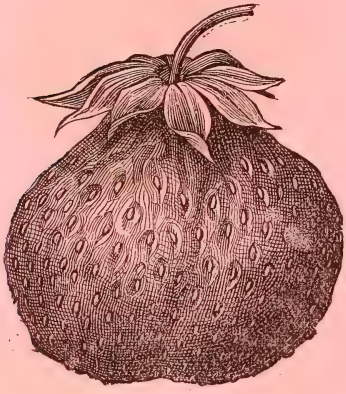
IRON CLAD.

WINDSOR CHIEF (*P*).—Introduced from Michigan in 1880 as a seedling of the Champion, fertilized by the Downing. It appears to combine many of the good qualities of each. Vigorous, healthy plant, enormously productive, berries, large to very large, rich dark red color, very acid till fully ripe, one of the most profitable market varieties, and, if allowed to ripen on the vines, it is one of the richest table berries, if you have plenty of sugar. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.



WINDSOR CHIEF.

SHARPLESS.—One of the strong growing sort and always healthy; only moderately productive; fruit large to very large, sometimes very irregular in shape, and inclined to be green at the tip; tough and stringy in texture; it is of fairly good flavor, and is largely planted by those who want big berries, in deep, rich garden soil, and carefully cultivated in hills. Some enormous berries of this variety have been grown, and it finds a place in every choice collection. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.



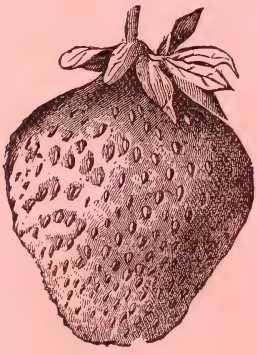
PRINCE.

PRINCE.—A fairly vigorous plant, habit somewhat like Jersey Queen; does best on fairly strong soil; moderately productive of large to very large berries, firm and solid, and of most delicious, rich, spicy flavor, that commends it to the attention of every lover of high-flavored berries. It is so fine as to well repay any extra attention required in its culture. 35 cents per dozen; $1 per 100; $5 per 1,000.

BELMONT.

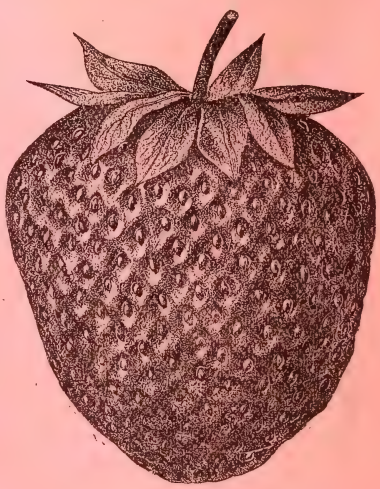
BELMONT.—Sent out from Boston a few years ago as the finest market sort ever grown there. It has not proven a success in matted row culture on light soils. The plant is more vigorous than Sharpless, and, grown in hills or narrow rows, on heavy rich land, it is very prolific of large rich scarlet berries, conical in shape, and of superior quality, very firm, fine for shipping or canning. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.

PARRY.—Moderately vigorous, healthy plant, from same stock as Prince; fairly prolific of large berries, bright color and firm, rich sweet flavor; the earliest to ripen of any of the large berries. 25 cents per dozen; 50 cents per 50; $1 per 100.



WARFIELD.

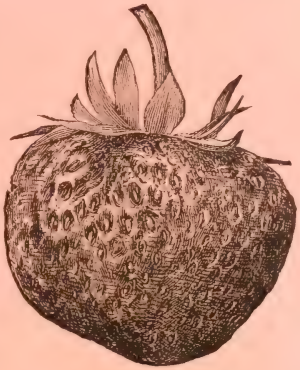
WARFIELD (*P*).—Originated in Illinois five years ago, and has created quite a sensation among the market growers where it is known. Plant is very vigorous, blooms very early, but has such tall, rank foliage as to protect the bloom from early frosts; fruit of medium size, perfect form, bright red color, fair quality, and very firm; promises to be even more productive than the Crescent. Strongly recommended for trial as a promising market variety. 50 cents per dozen; $3 per 100.



PINEAPPLE.

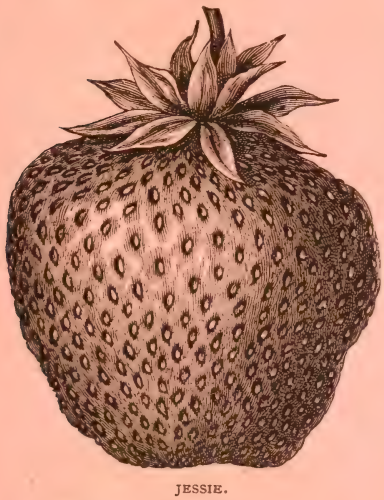
PINEAPPLE.—Received last year from Maryland; has not fruited here yet; the plant is the most remarkable grower of any we have; strong, healthy plants, making runners quite freely; very broad dark green foliage that grows very tall and rank, many of our strongest plants standing a foot high. If the fruit is in proportion to the plant we may look for great things in June. Those who have seen it in fruit say it outyields Crescent planted side by side; averages larger and is a better shipper and sells for more money than the Sharpless; dark crimson color; flavor the most delicious of any berry in cultivation, thus combining vigor of plant, productiveness, large size, and high flavor to a wonderful degree, and is likely to create a furore among all cultivators of strawberries. $1 per dozen; $5 per 100.

HAMPDEN (*P*).—Originated in Springfield, Mass., in 1883, and at horticultural exhibitions of 1886, 1887, and 1888 received more premiums than any other new variety. Plant only moderately vigorous, very productive, fruit of medium to large size, fine uniform shape, bright scarlet color, fine texture and good quality, and, being one of the earliest to ripen, it promises to be of great value either for home use or for market. 50 cents per dozen; $2 per 100; $10 per 1,000.



HAMPDEN.

SUMMIT (*P*).—Originated with Matthew Crawford, one of Ohio's most reliable cultivators of the strawberry. The plant lacks in vigor of growth, and is inclined to rust; not very productive, yet *the fruit is so very large* and of such rich, bright color and *fine flavor* that it is sure to find favor with those who appreciate beautiful berries, even if they do not have so many of them. 25 cents per dozen; $1 per 100.



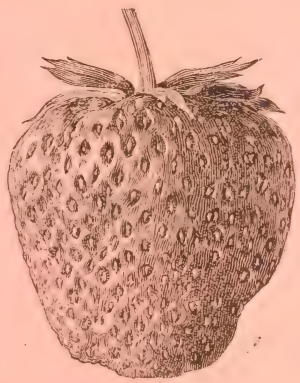
JESSIE.

LOGAN.—Origin same as Itaska, not as free a grower, but plants are stronger, moderately productive of large to *very large* berries, uniformly globular in shape, rich color, and of fine quality. This promises to be a grand berry for the family fruit garden. 50 cents per dozen; $3 per 100.

ITASKA (*P*).—Originated in Indiana a few years ago, and is supposed to be a seedling of the Crescent, has the same habit of growth as that variety, and is very prolific of medium-sized, bright scarlet berries. 25 cents per dozen; 75 cents per 100.

JESSIE.—Recently introduced from Wisconsin; plant a strong robust grower, similar to Sharpless. Except in some few instances, it has shown a variegated whiteish yellow foliage that indicates weakness. This, however, may result from local conditions and not prove general, for on most soil it is a robust, healthy plant; long stout fruit stalks hold the fruit well up from the ground; *berries of largest size*, medium to dark red color all the way through; firm and solid and of most excellent quality; very few small berries and none of the largest ones, of irregular shape; it will rank No. 1 for the family garden or for market. 25 cents per dozen; $1 per 100; $5 per 1,000.

LIDA (*P*).—A great improvement on its parent the Crimson Cluster; plant a vigorous, healthy grower, either on heavy soil or light sand. Very productive of large to very large berries, bright red color, uniform shape, firm, and good quality. One grower who has tested it says, "It is as productive as Crescent, and the berries will average twice as large." With us it is as prolific as the Crescent, and fully one-half larger at first picking, and holds its size well to the end of the season. The plant makes double the roots of any other variety we have, and is thus able to withstand drouth. We have never regretted paying $1 per plant for our first stock of it three years ago. We predict that it will be very extensively planted when better known. 50 cents per dozen; $3 per 100.



LIDA.

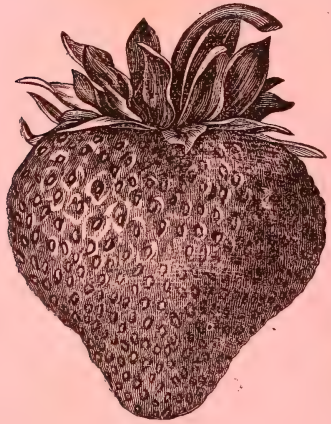
BOMBA.—A very strong growing plant, yet it makes runners but sparingly. Not well tested yet, but what little fruit we have had is of fine form and color, fair quality, of *very large size*, and ripened extremely early. Should think it a grand amateur berry for heavy soil and high culture. 50 cents per dozen; $3 per 100.

FOR LARGE LOTS OF PLANTS AT VERY LOW PRICES, write to "the other fellow." For Choice Stock, carefully packed, and at fair prices, **WE SOLICIT THE PATRONAGE OF ALL INTELLIGENT CULTIVATORS.**

HOFFMAN.—A new variety from Maryland that has been largely planted there the past two years as one of the best for northern shipment; is evidently a seedling from Wilson's Albany, although the plant is a little more vigorous; very prolific of medium-sized berries, dark and glossy like the Wilson, firm, and of good quality, will keep in good order several days after being picked, which is greatly in its favor as a market berry. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $4 per 1,000.

HOFFMAN.

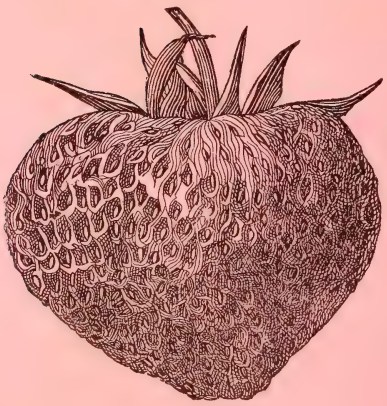
CLOUD (*P*).—A strong, vigorous growing plant from the south, with heavy dark green foliage; a very strong rooted plant. Those who know it best claim that it is more productive than Crescent, larger and as firm as the Wilson; if so, it will prove one of the best market sorts, as it *ripens extremely early*. 50 cents per dozen; $3 per 100.


MONMOUTH.

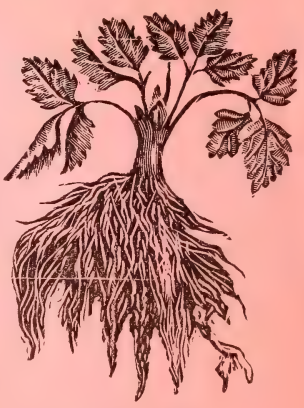
MONMOUTH.—A vigorous, rapid-growing plant, some like Crescent, only somewhat more slender in habit. The fruit resembles the Wilson, when grown to perfection; very productive, and one of the very *earliest to ripen*. A valuable early market variety. 25 cents per dozen; 50 cents per 50; 75 cents per 100; $5 per 1,000.

OHIO (*P*).—Somewhat similar to Kentucky in growth, is even more productive; fruit medium-sized, nearly round, and of good quality, *ripens late*, and is of special value on that account. 25 cents per dozen; 50 cents per 50; 75 cents per 100.

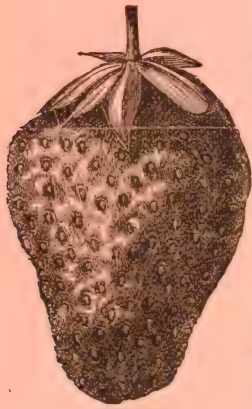
GANDY.—A very strong growing plant, moderately productive, *fruit large*, of uniform globular shape, bright color and good quality, *ripens late*, and promises to become one of the standard market sorts. 25 cents per dozen; 50 cents per 50; 75 cents per 100.


MIAMI.

MIAMI.—From the county of that name in Ohio, where it has created quite a sensation the past two seasons. Plant a moderate grower, fairly productive of *large to very large berries*. (In fact, we have never seen so many large berries picked at one time as came from the large fields of it last June, at a time when the ground was parched with drouth.) Rich, dark red color, very solid and meaty, and good quality. It's one of the "big fellows" that command high prices in any market. The plant has a wonderful power of making roots. Grown on the same soil as many of our other varieties, the roots of the Miami are far more fibrous than any of the others, except Lida. Customers will do well to note that we are the only parties east of Ohio who offer the Miami, who have any plants of their own growing. $2 per dozen; $12 per 100; $100 per 1,000.


MIAMI PLANT.

ORDER EARLY to get the best selection of plants, and PLANT as EARLY in the season as possible to secure the early start that insures success. Strawberries may be planted any time before June 1st with fair success, yet a month or six weeks earlier is better.



HAVILAND.

HAVILAND (*P*).—Large, healthy, vigorous growing plant; very productive; fruit large, conical, with slight neck; uniform in size and shape; bright red, firm, and good quality. Has all the good points of Crescent, with much larger size. 50 cents per dozen; $2 per 100.

From experience here in Connecticut, correspondence with leading fruit growers in every State in the Union and Canada, as well as from personal observation in fourteen of the Western States during the fruiting season, we would classify the leading varieties as follows:

LARGEST BERRIES.— Mammoth, Jewell, Pineapple, Miami, Jessie, Sharpless, Logan, Summit, Gandy, Bomba, Bubach, Belmont.

MOST PRODUCTIVE.—Bubach, Hoffman, Cloud, Monmouth, Warfield, Hampden, Lida, Haviland, Pineapple, Manchester, Windsor Chief, Crescent, Itaska, Jewell.

BEST FLAVORED.—Prince, Kentucky, May King, Charles Downing, Miner, Parry, Gold, Pineapple.

EARLIEST.—May King, Cloud, Monmouth, Crescent, Bubach, Hampden, Parry, Wilson, Iron Clad.

LATEST.—Manchester, Windsor, Kentucky, Ohio, Gandy.

This classification is not given as an iron-clad rule to follow, but is general in its scope, and each family will vary it somewhat to suit their own taste and local conditions. It can, however, be used as a partial guide to assist in pointing out the way to a proper selection, either for home use or for market.

By planting the early varieties on a warm sunny spot, and removing the mulching early in spring, and the late varieties on heavy moist soil or on a northern hillside, and keeping on the mulch as late as possible in the spring without injuring the plants, it is possible to prolong the fruiting season to from five to six weeks, or from June 1st to the middle of July.

About 1,000 plants equally divided between five best varieties, two early ripening, one medium, and two late ripening varieties will make a grand family fruit patch that will supply a very hungry family of six or eight persons, and during the height of the season furnish a surplus for canning, and to give to the family of the busy neighbor who "has no time to fuss with little things," A fine family fruit garden that would cost on most farms from $15 to $20 a year in manure, labor, and plants, would furnish plenty of fruit, fresh and canned, the whole year around, that would be worth at low prices not less than $100. Surely here is a "home market" worth considering.

Do your children like berries? If so, are you sure you are supplying them all they can eat? If not, why not?

"How far can you ship plants with safety?" we are often asked.

The following extract from a recent letter is a fair sample of what we are constantly receiving:

WATSONVILLE, CAL., Dec. 31, 1886.

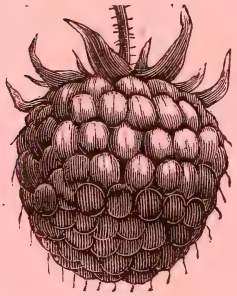
MESSRS. G. H. & J. H. HALE, South Glastonbury:

Gentlemen,—The 16,000 Parry strawberry plants arrived in due time, and were in excellent condition. Your mode of packing is superior to any I have ever seen, and I have received a great many thousand strawberry plants from the east during the time I have been in the business, some eight or ten years. The charges on your plants were much less per thousand than any I have ever received, owing to the superior manner in which they were packed. The plants were set immediately after their arrival, and have commenced to grow finely. Hardly think we will lose a plant. JAMES WATERS.

Small orders are packed in damp moss and oiled paper, after which they are carefully wrapped in heavy manilla paper, with air at the tops of plants, so that they will keep in good order for a number of weeks. Larger orders, up to one or two thousand, are packed in nice new market baskets, which are much lighter than boxes, and so save express charges to our customers. Larger orders are packed in light crates, roots of plants overlapping, and nicely packed in moss, and the tops always exposed to air, which prevents all heating and guarantees safe arrival.

Following strawberries, or rather coming with the last picking of them, are the raspberries, red, black, yellow, and purple. Good crops may be grown on any soil, but the best is a deep, moist loam. Open furrows with a light plow in rows five to eight feet apart, the distance depending somewhat on the varieties to be planted and the system of culture to be followed. If grown in hills, plant six feet apart, each way. If to be grown in hedges, plant rows seven feet apart, plants two feet apart in the row, and when the plants attain the height of two feet, pinch off the tops; this will cause them to grow a strong, stocky bush, that will require no staking, and also have its wood ripened, and therefore less likely to winter-kill. A partial shade is no objection, as larger fruit can be grown in this way, although it will not be as fine flavored as that grown in the sun. We offer only a few varieties, but, having tested almost every sort in cultivation, we know these to be the *very best* of their class. If to be sent BY MAIL, add 15 cents per dozen, to pay postage.

RED VARIETIES.



CUTHBERT.

CUTHBERT.—*The best and most reliable Red Raspberry in cultivation.* Plant vigorous and hardy, even at the far north; very prolific; fruit very large; deep red color, delicious flavor, and firm. Should be planted by every one, whether they grow fruit for market or family use, as it is the best in all respects of any we have. *Season, medium to very late,* which is somewhat of an objection to its profitable culture in sections where only *early ripening* is required to make fruit culture profitable. 50 cents per dozen; $1.50 per 100; $8 per 1,000.

RANCOCAS.—A *medium early* sort of recent introduction; vigorous, healthy plant, very productive, of medium-sized, rich bright red berries of good quality; fine for family use or profitable for *early market,* on account of *earliness and productiveness.* 75 cents per dozen; $2 per 100; $10 per 1,000.

SCARLET GEM.—A most valuable extra early market sort. The plant, though not so strong and stocky in its growth as the Cuthbert, is far more vigorous than Hansell, Highland, Hardy, or any of the early varieties in cultivation, fully as productive as Cuthbert, *bright scarlet color, very firm and solid,* and in 1888 ripened four days earlier than any of the leading extra early Red Raspberries growing in the same field, less than two rods away. 50 cents each; $5 per dozen; $35 per 100.

EARLY PROLIFIC (*Thompsons*).—A vigorous, healthy plant, extremely hardy, and *productive* of medium-sized berries; *bright color* and firm, and ripens EXTREMELY EARLY. Gives promise of being a very profitable early market variety. $3 per dozen.

SCARLET GEM.

MARLBORO.—Moderately strong growing plant, except in some few sections it is a very poor grower, but it has been improving in this respect the past few years. *Productive of very large bright scarlet berries*, that are very firm and solid; ripens ***extremely early,*** and on this account is ***very profitable.*** 50 cents per dozen; $2 per 100; $10 per 1,000.

MARLBORO.

SHAFFER.—The largest of all the raspberries, both in cane and fruit, and *enormously productive* of berries of dull purplish red color, of rich sprightly flavor, somewhat acid; fine for the table or canning. One of the best for the family garden. On account of its color it is not appreciated in some markets. Propagates from layering the tips the same as the Black Caps. 50 cents per dozen; $2 per 100.

YELLOW (or Orange-Colored) VARIETIES.

CAROLINE.—A seedling of Brinkle's Orange; plant a strong grower, somewhat willowy in habit, extremely hardy, and very productive of medium to large berries, of pale orange color, very rich sprightly flavor that delights all lovers of really choice fruit; ripens very early, and should be in every family garden. 75 cents per dozen; $3 per 100.

GOLDEN QUEEN.

GOLDEN QUEEN.—A seedling or a "sport" from the Cuthbert, found growing in a field of that variety in 1882; equal to that noble berry in every respect of plant growth, vigor, hardiness, and productiveness; *berries of largest size*, of rich creamy yellow color, firm and solid, and of *rich sweet flavor*, that make it one of those delicious family berries that all can enjoy. It is also a *superb market berry*, its fine appearance commanding for it a ready sale at high prices. It is becoming *very popular* in the best markets as a *fancy fruit*. 75 cents per dozen; $3 per 100.

CHAMPLAIN.—A white seedling of Antwerp, originating in Northern Vermont, where it withstands the frosts of their extreme winters. Growing here it is a wonderfully strong, stocky plant, producing abundantly of extra large, delicious berries, equal to the choicest Antwerps, and of such delicate creamy white as to attract great attention. A very valuable acquisition for the family garden, where beauty and *quality* are appreciated. While hardy at the far north, it appears to require winter protection in this latitude, but the delicious fruit well repays the extra trouble. $2 per dozen; $10 per 100.

BLACK CAP VARIETIES.

ADA.—A strong, stocky growing plant that has thus far proved *absolutely hardy*, productive of *very large* berries, with slight bloom, firm and solid; ripens late; equal to the Gregg in all respects, and being much more hardy, is far more valuable as a late market variety, or to supply the family table after all others are gone. $1 per dozen; $5 per 100.

GREGG —*Largest and latest* of all. Valuable for family use and for such markets as can profitably handle late fruits; not quite hardy at the north. 50 cents per dozen; $2 per 100; $10 per 1,000.

SOUHEGAN.—The standard for earliness, hardiness, and productiveness. Fruit jet black, rich, and sweet. Valuable for family use or market. Entirely superseding the old Doolittle. 50 cents per dozen; $2 per 100; $10 per 1,000.

SPRINGFIELD (Thornless).—Plant a healthy, moderately vigorous grower, with slender willowy branches, *entirely free from thorns;* fruit of large size, jet black, very rich and sweet, and ripens *extremely early*, and with high culture is *very productive*. Valuable for the family garden, and, as it ripens so early, it sells for high prices in the market. 50 cents per dozen; $3 per 100.

EARHART.—Reduced size, from photograph of cluster of ripe berries, August 15th.

EARHART.—This Everbearing Black Cap Raspberry was introduced by us two seasons ago after having been thoroughly tested for ten years in Illinois, where it originated. The plant is an extremely strong, stocky grower, with an abundance of stout, heavy spines, and a beautiful wrinkled or corrugated foliage of rich dark green color, that is extremely ornamental. Never has been known to winter-kill, and thus far has been able to withstand heat and drouth that has entirely used up other varieties. The fruit is of large size, jet black, and of good quality, the first or main crop ripening the last of June or early in July, at about the same time as Souhegan. At the same time the first of the new canes of the same season's growth begin to bloom, ripening their first fruit soon after the main crop is gone, and ***continue to bloom and produce fruit till stopped by freezing in the fall.*** The fruit produced on the new canes in August, September, and October, being about twice as much as that of the first crop, it can truly be said to produce ***three full crops each season.*** Good strong plants, if set early in the spring, and get a good start, will begin to fruit in August of the same year, and produce quite an abundant crop in September and October, as we have plainly proved the past year; plants set in April producing in August and September from 300 to 500 berries each. On older plantations, should the canes for the first crop get killed or cut to the ground in any way, the new canes will soon repair the damage by producing a heavier crop than usual, the only real loss being a delay of three or four weeks in the time of the first ripening. The *Rural New Yorker*, of September 15, 1888, in reporting from their experimental grounds, says:

"The Earhart Everbearing Black Cap is at this date full of fruit **From a single tip, one foot long, we have just picked 85 large ripe berries.** * * * As an everbearing raspberry it is probably the best of its class by far; as a novelty. it is a success."

In its report of the field meeting of the State Board of Agriculture, held on our farm, August 16, 1887, the *New England Homestead* said:

"The Elm Fruit Farm is being used by the State Board to test all new fruits, and the trials are of great interest to thinking farmers. The Earhart cannot be beaten by any one black cap, for it has the good points of many. A single new cane of no particular selection showed over 350 berries, and an entire plant selected, and the berries carefully counted (rejecting imperfect berries), showed 955 berries, and 449 on a single stalk."

This, it will be understood, was on one year plants, in open field culture, where a full crop of fruit had already been picked in June and July; and these berries were the second crop for the season.

EARHART.—Reduced size, from photograph of cluster of ripe berries, September 15th.

"Oh, what beautiful berries!" "Picked half pint to the plant, September 30th." "Fifteen plants out of the dozen lived." "Beautiful crimped foliage." "Large as Gregg, and much better quality." "Picked twelve quarts of fruit, in August and September, from twelve plants." "Better than I expected." "There is no berry that will compare with it."

And many other like expressions are found in letters received from our customers in every State of our Union where the Earhart has been tested.

EARHART.—Reduced size, from photograph of cluster of ripe berries, October 20th.

At the winter meeting of the Ohio Horticultural Society, Prof. Green of the State Experiment Station said:

"The Earhart is a great novelty, and the only everbearing variety of any value. It has been thoroughly tested at the station."

The *Rural New Yorker* of September 8, 1888, in reply to one of readers, says:

"The only objection we have to the Earhart Everbearing is that it seems to bear itself to death. We have now a plant every tip of which is laden with berries, from green to ripe, and we ourselves must confess that **producing too much fruit is its one fault.** *It will fruit all the time*, and thus leave us but few clear tips to propagate from; *but this will not be an objection to those who want fruit rather than plants.*"

We are often asked as to its value as a market berry. A limited quantity of fruit out of season will sell at very high prices; but there is no demand for a very large supply, hence we have never recommended Earhart as a market variety, but as a novelty for the family garden it has no equal, and will give many a meal of delicious berries long after everything else of the kind is gone. No fruit garden is complete without the Earhart. 50 cents each; $2 per 6; $3 per dozen; $15 per 100.

CARMAN.—In plant growth it resembles the Souhegan more than any other, although it does not branch quite as freely, and has not so many sharp spines. *Vigorous, healthy, and hardy*, not being injured in the least by the extremes of cold that have visited us for the past five winters, and twice killed the Cuthbert, and once the Turner, which is claimed to be *iron clad in hardiness. Very productive of extra large jet black berries of superior quality, and ripening very early.* We picked berries from it June 23d, and from the same field we marketed strawberries till July 2d, or until nearly half the Carmans had been marketed at high prices. In one field of Carman, with one and one-half acres of one-year plants, and half an acre of two-year plants, a careful record was kept of all berries picked and sold each day, and the result was 6,482 quarts of berries sold, and the pickers being on a "strike" for two days in the height of the season, many berries were lost, and some being given to the pickers at the end of the season, the whole crop was not less than ***7,000 quarts from the two acres.*** This is not an enormous yield, but shows what the Carman will do with common field culture, *one year from planting*—10 cents per quart gives *$350 per acre*, yet two-thirds of this crop was put on the market so early they sold at 15 to 18 cents per quart. The early ripening and rapid maturity of the Carman will bring the fruit into market at a time when there can be but little competition, it will be seen at once that there is *money in it as a market berry.*

Hon. Marshal P. Wilder, Pres. of American Pomological Society, to whom we sent a few plants for trial, said:

In regard to raspberries, the Carman is the *earliest* cap variety I possess. It is sweet and *very good*, a valuable acquisition.

E. Williams, Secretary of the N. J. Horticultural Society, writing to the *Press*, of Philadelphia, of the original plantations of Carman, says:

"These I visited on July 7th, and found *the finest show of fruit of this kind I ever saw.* I had an opportunity to see and taste this new sort beside the Tyler, Souhegan, and Gregg, and, while I think in quality it is fully equal to either of the two first named, it was larger than either and, I thought, was *two or three days earlier than Souhegan* and only exceeded in size by the Gregg. As a cropper it seems equal to the best. Should it maintain its present characteristics when tried elsewhere, it will be the peer of any of the family."

Mr. A. W. Cheever, Editor of the N. E. Farmer, Boston, says:

I saved two plants of the Carman, which bore a good crop, and the berries were the largest and richest black caps I have ever tasted. It pleases us better than any cap raspberry we have ever tested.

From the Rural New Yorker, of Sept. 18th, 1886, we extract the following in regard to the Carman:

The berries began to ripen June 29th, they are jet black, (without bloom), with small drupes, and as good in quality as any cap berry we know. The two bushes bore as many berries as any variety ever tested on the Rural Grounds. The canes are stout and have grown to the height of six feet. They were not in the least injured by the past winter. *arliness, hardiness, productiveness, quality* and *firmness* might be claimed for this variety judging from one season's test.

And in a private letter the Editor writes us:

The earliest and most perfect black cap we have ever tested. You ought to offer it for sale at once, *it's just immense.*

Very early fruit always pays, and market gardeners will appreciate this point of *earliness* in the Carman and plant it accordingly. 75 cents per dozen; $4 per 100.

CURRANTS.

For the best results, currants require a deep, rich soil and thorough cultivation. If planted in a single row for garden culture, the plants may be three feet apart. For field culture they should be planted in check rows, four and one-half to five feet apart, and some liberal cultivators even recommend planting six feet apart each way, which is none too far for the Victoria on strong land heavily manured. Plant any time in fall or very early spring. Prune so as to form a broad open headed bush after they come to bearing size. If the new wood is pinched back in June it will cause the formation of an extra amount of strong fruit buds. If heavily mulched during June and July it will add greatly to the size of the fruit. The currant worm is easily destroyed by dusting the bushes with powdered white hellebore, when the dew is on. We have recently been informed by an expert gardener that where iron chips or filings are scattered at the base of the bushes, the worms *never* appear.

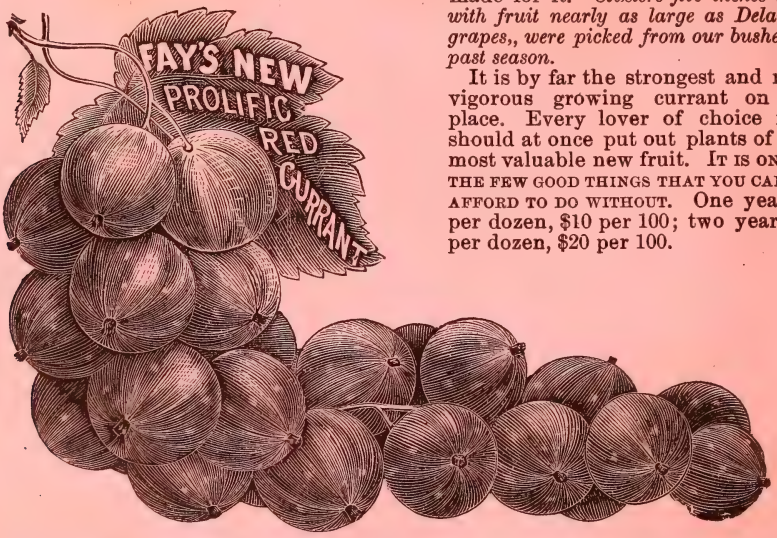
One-year plants can be sent by mail at an additional cost of 10 cents per dozen, 30 cents per 50, 50 cents per 100.

CHERRY, or VERSAILLES and RED DUTCH.—one-year, 50 cents per dozen, $3 per 100, $20 per 1,000; two-years, 75 cents per dozen, $4 per 100, $30 per 1,000.

WHITE GRAPE.—One-year, 75 cents per dozen, $4 per 100; two-years, $1 per dozen, $6 per 100.

VICTORIA.—A very vigorous, prolific, large, late variety, that is coming more into favor every year. We think it *the most valuable of any of the older sorts.* One-year, 50 cents per dozen, $3 per 100, $18 per 1,000; two-years, 75 cents per dozen, $5 per 100, $25 per 1,000.

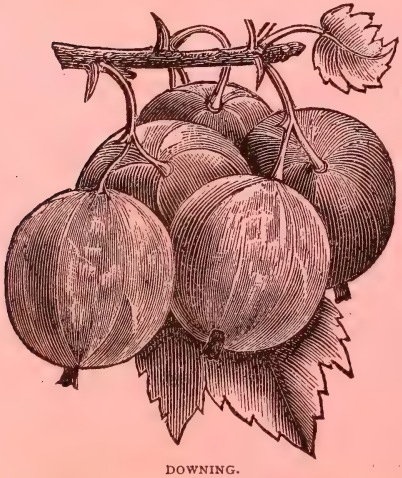
FAY'S PROLIFIC.—Has been carefully cultivated for the past nine years alongside of all the popular varieties, and proved by far the most prolific of all. Color, rich red. "As compared with the Cherry Courant, Fay's Prolific is EQUAL IN SIZE, BETTER FLAVOR, WITH MUCH LESS ACID, AND FIVE TIMES AS PROLIFIC; also, from its peculiar stem, LESS EXPENSIVE TO PICK." It is one of the few good thing that will sustain all the claims made for it. *Clusters five inches long, with fruit nearly as large as Delaware grapes,, were picked from our bushes the past season.*



It is by far the strongest and most vigorous growing currant on our place. Every lover of choice fruit should at once put out plants of this most valuable new fruit. IT IS ONE OF THE FEW GOOD THINGS THAT YOU CANNOT AFFORD TO DO WITHOUT. One year, $2 per dozen, $10 per 100; two years, $3 per dozen, $20 per 100.

LEE'S PROLIFIC.—This new variety is by far the best of all the black currants. Very strong grower; enormously productive; large long clusters of very large berries, superior quality, and ripens extremely early, and yet will remain on the bushes in good order a very long time. Extra strong two-year bushes, $1 per dozen, $5 per 100.

GOOSEBERRIES.



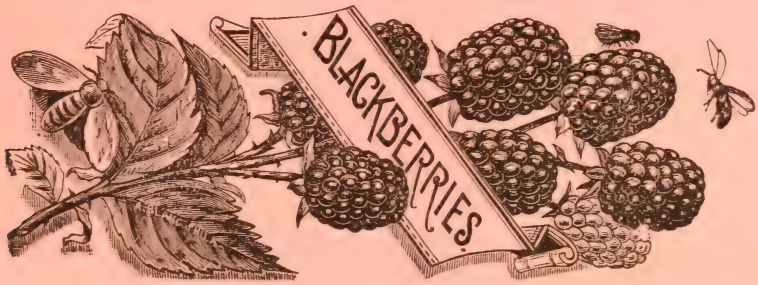
DOWNING.

Gooseberries require much the same soil and treatment as currants. If planted in a partial shade they are much less likely to mildew, which is the one drawback to successful culture of the best English varieties in this country.

DOWNING.—Bushes strong and stocky, with many strong sharp spines. *Very productive* of large pale green berries, of excellent quality for cooking or table use when fully ripe. Free from mildew, and the most reliable of any of our American varieties. One-year, $1 per dozen; two-years, $1.50 per dozen.

SMITH'S IMPROVED.—Plant a more slender grower than Downing, and much less thorny. Very productive of large, yellowish-green berries, of most excellent quality. A delicious berry for eating out of hand, and fine for cooking purposes. This and Downing give a grand succession. One-year, $1 per dozen; two-years, $1.50 per dozen.

The New Industry and Triumph have both mildewed so badly with us that we have ceased to propagate them.



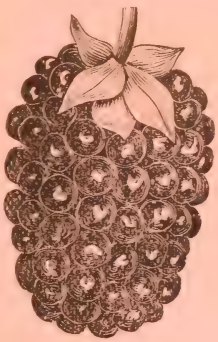
Blackberries are usually grown in rows, six to eight feet apart, with plants two and one-half to three and one-half feet in the row, and allowed to grow so as to form a solid hedge row; however, larger and better fruit and more of it can be grown, and they can be cultivated at less expense if they are planted in check rows, five to seven feet apart, according to the vigor of the variety. They will grow and fruit well on land of moderate fertility; on very rich soil they are inclined to make too much wood growth. Careful thinning and close pruning of the canes will however insure plenty of fruit. Plant any time in the fall, or very early spring.

When to be sent by mail, add 10 cents per dozen, 30 cents for 50, and 50 cents per hundred, to the prices affixed.

SNYDER.

SNYDER.—The one great blackberry for market in the far North, as it is the most vigorous, hardiest, productive, and reliable of all; has never been known to winter kill, even in the Northwest, with 25 to 30 degrees below zero. Fruit of medium size and good quality; ripens medium to late. 50 cents per dozen; $2 per 100; $12 per 1,000.

WACHUSETT THORNLESS—*A grand berry for the family garden,* especially at the North, as it is *perfectly hardy;* strong, vigorous, canes, free from thorns; *fruit of good size and fine flavor;* ripens medium to late, and *continues in bearing for a long time,* often into September. *Productive under high culture,* but will not thrive on dry, thin soils, and with the slovenly culture so often given to the blackberry. 75 cents per dozen; $3 per 100; $20 per 1,000.

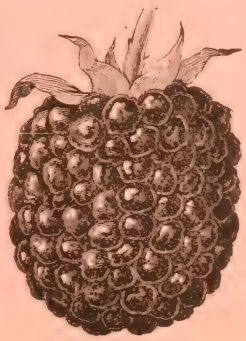


WACHUSETT.

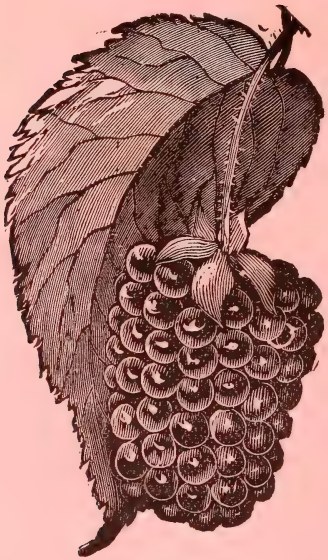
ERIE.—For three years we have been growing this new berry, and it is the most vigorous and healthy plant of any blackberry we have ever grown, and thus far absolutely hardy. Very productive of berries of the *largest size,* coal black, firm and solid, and sells in the market at highest prices, fine form and ripens early, is being extensively planted both in family and market gardens; $1 per dozen; $5 per 100.

MINNEWASKI.—This new berry has not been fully tested here. Reliable parties report it as a vigorous plant, *perfectly hardy, enormously productive* of extra large fine fruit that ripens extremely early; if further test prove this to be true it will be a great market variety for the north. $2 per dozen; $8 per 100.

ANCIENT BRITON.—An old English variety, that has recently proved to be one of our most profitable market sorts for the far North, as it is as hardy as Snyder and much *earlier* and *larger.* $1 per dozen; $5 per 100.



ERIE.

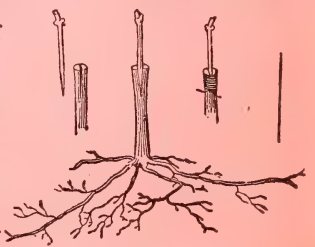


LUCRETIA DEWBERRY.

LUCRETIA DEWBERRY (*true*).---Who is there that has ever tested the wild Dewberry of our fields that has not longed for some variety that would thrive well under cultivation, and although a number of varieties have been tested, none of them have proved to be of much value, till the introduction of the Lucretia, which was discovered in West Virginia some years ago. The plant is perfectly hardy and healthy, and remarkably productive. The flowers are very large and showy. The fruit, which ripens with the Mammoth Cluster Raspberry, is often *one and one-half inches long, by one inch in diameter*, soft *sweet and luscious* throughout without any hard center or core. It is the best of the Blackberry family; as hardy as Snyder and productive as any. *The berries are far larger and incomparably better than any Blackberry.* As the Dewberry roots only from the tips, and does not sprout like blackberries, it will be much more desirable for garden culture and the trailing habit of the plant will render winter protection easily accomplished, in cold climates, where that precaution may be necessary. It may either be allowed to trail on the ground, or be trained to a trellis, wall or fence, or over stumps, rockeries, etc. Its great profusion of large, showy white flowers in spring, followed by the clusters of beautiful fruit, together with its handsome, glossy foliage, render this an interesting plant at all seasons. It has proved *very satisfactory* wherever tried, and is recommended with the greatest confidence. ANY COLLECTION OF FRUITS WILL BE INCOMPLETE WITHOUT THE LUCRETIA, and, *ripening* as it does *before any other blackberry*, it must prove *extremely profitable as a market berry*, especially at the North. Inferior varieties are being offered for this and at less price. BE SURE AND GET THE TRUE LUCRETIA. $1 per dozen; $5 per 100.

HARDY GRAPES.

The grape delights in a warm rich soil and snug exposure. Plant in rows six to eight feet apart and vines about the same distance in the row, dig holes large enough to allow of spreading of all the roots. Cut back the vine to one or two buds and plant them so that only one bud will be above ground, fill the hole with fine pulverized earth, to which fine ground bone has been added. Ashes, or muriate of potash may be spread on the surface after planting with good effect. Set a stake by the side of each vine to tie the young growing wood to, it will be all that is required for first two years. Any manner of pruning that will admit sun and air to the fruit will insure a crop. Yet the finest fruit will come from close pruning. On many a place are strong vigorous growing vines of almost worthless varieties of grapes, and the best thing to do is to saw them off below the surface of the ground and graft them over with some well tested sort or with some promising new variety that we wish to force into fruiting early. A single eye cutting put in as shown in the cut, and then wound with string or old rags, and covered with a mixture of clay and fresh cow dung, and then covered with earth so that the bud is just above the surface of the soil, is as sure to grow as an apple graft. We do not offer a long list of varieties, simply *a few of the best* new and old ones that are most likely to give general satisfaction. Can, however, supply any variety wanted at market prices.



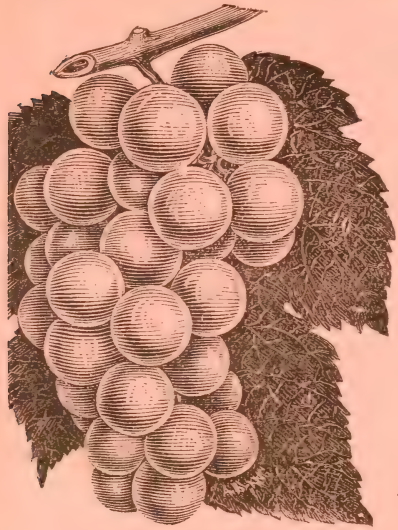
GRAFTING GRAPE.

STANDARD VARIETIES.

WORDEN (Black).—Resembles Concord; bunch and berry somewhat larger; ripens a few days earlier, and of a decidedly richer and sweeter flavor. The best black grape in cultivation. One-year, 15 cents each, $1.50 per dozen; two-years, 25 cents each, $2.50 per dozen.

MOORE'S EARLY (Black).—Bunch medium to large; berry large, round, black, with heavy blue bloom; good quality; vine hardy and vigorous; fairly productive; ripens early. Valuable for the table or market. One-year, 25 cents each, $2.50 per dozen; two-years, 35 cents each, $3.50 per dozen.

BRIGHTON (Red).—One of the best varieties of recent introduction; as large and beautiful as Catawba, which it resembles in color, form of bunch, and berry, and is fully equal to the Delaware in flavor; vine vigorous, hardy, and productive; making it one of the most valuable. The best red grape in America. One-year, 25 cents each, $2 per dozen; two-years, 35 cents each, $3 per dozen.



MOORE'S DIAMOND.

MOORE'S DIAMOND (white).—A pure native variety. Vine as vigorous and productive as Concord; bunch large and compact; berries, about size of Concord; color, greenish white, tinged with yellow; flesh, juicy and almost without pulp; quality, very good. One-year, $1 each; two-years, $1.50 each.

NIAGARA (White).—Vine a vigorous grower; healthy, hardy, and very productive; leaves large, thick, and downy; bunch, large, compact, sometimes shouldered; berries large, round, light greenish white; flesh tender, with little pulp; quality as good or better than Concord; ripens a few days earlier. One-year, 50 cents; two-years, 75 cents.

EATON.—Bunch and berry very large; compact berries, very large, round, black, with heavy blue bloom, very juicy and rich. A most showy grape. One-year, $1 each; two-years, $1.50 each.

LADY.—Extra early white grape; seedling of Concord; vine vigorous, hardy, and productive; flesh rich, sweet, and sprightly; very valuable for family vineyard. One-year, 25 cents each, $2 per dozen; two-years, 35 cents each, $3 per dozen.

POUGHKEEPSIE RED.—Averages larger than the Delaware and of even better quality. Vine somewhat resembles Delaware, yet more vigorous in wood and foliage growth and succeeds where the Delaware will not, ripens early and is likely to prove one of the very best for family use. 1 year, 75 cents; 2 years, $1 each.

ULSTER PROLIFIC (Red).—Vine healthy, hardy and *very productive*, bunch and berry medium. Compact, said to be a cross between Catawba and a wild grape, having the vigor of vine of the one, and high quality of fruit of the other, very promising; 1 year, 75 cents; 2 years, $1 each.

	Season.	Color.	1 yr.	2 yr.
Agawam,	medium,	red,	$0.15	$0.25
August Giant,	medium,	black,	.50	.75
Barry,	medium,	black,	.25	.35
Concord,	medium,	black,	.15	.25
Delaware,	medium,	red,	.15	.25
Dutchess,	medium,	white,	.25	.35
Early Victor,	early,	black,	.25	.35
Empire State,	medium,	white,	.35	.50
F. B. Hayes,	early,	white,	.35	.50
Hartford,	early,	black,	.15	.25
Jessica,	early,	white,	$0.50	$0.75
Lady Washington,	late,	white,	.25	.50
Lindley,	medium,	red,	.25	.35
Martha,	medium,	white,	.15	.25
Pocklington,	late,	white,	.25	.35
Salem,	late,	red,	.15	.25
Vergennes,	late,	red,	.25	.35
Wilder,	late,	black,	.15	.25
Wyoming Red,	early,	red,	.25	.35

ASPARAGUS.

CONOVER'S COLOSSAL.—75 cents per 100, $5 per 1,000. Special rate on large lots.

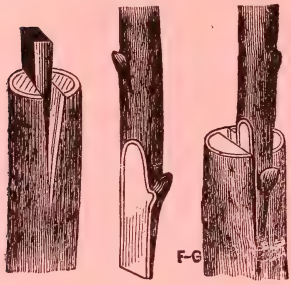
RHUBARB ROOTS.

LINNÆUS and VICTORIA.—Large early, $1 per dozen, $3 per 100, $20 per 1,000.

FRUIT TREES.

APPLES.—Leading standard sorts, 35 cents each; $20 per 100.
CRAB APPLES. Leading standard sorts, 50 cents each; $40 per 100.
CHERRIES.—Leading standard sorts, 75 cents each; $50 per 100.

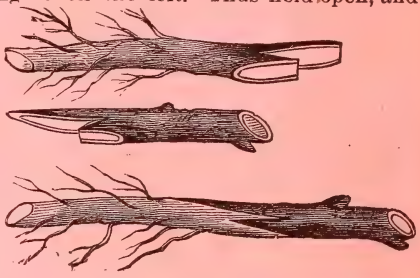
PLUMS.—Leading standard sorts, 75 cents each; $50 per 100.
PEARS.—Leading standard sorts, $1 each; $60 per 100.
QUINCE.—Orange, Rhea's Mammoth, and Angers, 50 cents each; $35 per 100. Champion, 75 cents each; $50 per 100.
PEACHES.—Best leading sorts for New England planting, 15 cents each; $1 50 per dozen; $10 per hundred; $50 to $70 per 1,000.



CLEFT GRAFTING.

Seedling trees or inferior varieties of apple, pear, plum and cherry on many farms might be readily converted into good bearing varieties if a little time was taken each spring in grafting. To help and encourage the boys in this work, we insert cuts, as here shown. The plum and cherry must be grafted *very* early in spring, while the apple and pear may be grafted any time in warm spring days, up to time when the leaves are well expanded. Scions may be cut at any time during late fall or winter, and kept in cellar in moist sand, or they may be cut just as wanted, except after the buds are much swollen in spring.

For Cleft Grafting, saw off the stock with a fine saw and split with an iron wedge made for the purpose, as shown in figure on the left. Thus held open, and with scion cut as shown in central figure, insert it in the stock as shown on the right, if stock is large enough two scions may be put in, remove the wedge, the stock will punch up tight, and hold scions in place. The cleft and wound should then be covered with grafting wax to exclude air and water. This wax is made of equal parts of bees wax, tallow and resin melted together, and when nearly cold worked by pulling like molasses candy.


WHIP GRAFTING.

Whip Grafting is a method of splicing the scion to the stock which offers a larger surface of contact and hence best adopted to small stocks on indoor work. Apple and pear root graft are usually done in this way and wound with waxed string to hold them together, they are then packed in boxes of damp sand and kept in cellar till time for planting out in spring.

FLOWERING SHRUBS AND VINES.

The following choice selection of shrubs and vines we offer as best suited to the decoration of home grounds. The list, though not large, embraces some of the finest varieties in cultivation, considering hardiness, variety of habit and color, and season of flowering. Price, 35 cents each; $3 per dozen.

ALTHEA.

This is really one of the most showy and beautiful flowering shrubs. The flowers are of large size, very double and full, and of various brilliant and striking colors. It blooms freely during August and September, when scarcely any other tree or shrub is in bloom.

DOUBLE ROSE.
DOUBLE PURPLE.

CALYCANTHUS.

SWEET-SCENTED SHRUB.—Flowers purple; very double; deliciously fragrant; remains in bloom a long time.

CYDONIA JAPONICA.

JAPAN QUINCE.—Bright scarlet crimson; flowers in great profusion in early spring; one of the best hardy shrubs.

DEUTZIAS.

CRENATA.—Flowers double white, tinged with pink.
GRACILIS.—A very desirable dwarf-growing variety; flowers pure white.

FORSYTHIA, VINDISSIMA.

Leaves dark green; flowers bright yellow very early in the spring.

HYDRANGEA PANICULATA GRANDIFLORA.

This is one of the most hardy and valuable shrubs in cultivation; it attains the height of three or four feet. The flowers are white, borne on immense pyramidal panicles; commences flowering in July, and continues until November.

SYRINGA.

GRANDIFLORA.—A large growing shrub; flowers snow white; in great profusion from June to July.

HONEYSUCKLES.

RED TARTARIAN.—Beautiful pink and rose colored; blossoms in June.
WHITE TARTARIAN.—Flowers white; blossoms in May and June.

LILACS.

COMMON PURPLE.—Species one of the best.
COMMON WHITE.—Flowers pure white and very fragrant.
PERSIAN WHITE.—Slender growth; fine and beautiful white flowers.

SPIREAS.

VAN HOUTE.—A strong grower; flowers pure white; in clusters.
PRUNIFOLIA.—A beautiful spirea; its flowers are like double small white daisies.

VIBURMUN STERILIS.

SNOWBALL.—A well-known shrub; attains the height of eight or ten feet; produces its snowy white flowers in large balls or masses in June.

PURPLE FRINGE.

Beautiful, distinct, large shrub; much admired for its long, feathery, flower stalks, which give the tree appearance of being covered with a cloud of smoke.

WIEGELAS.

Beautiful shrub, which blooms in June and July; the flowers are produced in such great profusion as to almost hide the foliage.
NONA VARIEGATA ROSEA.—One of the most conspicuous of the Wiegela; leaves beautifully margined, creamy white; flowers pink; dwarf grower; admirably adapted to lawns or small gardens.
CANDIDA.—Beautiful pure white flowers; free bloomer.

HARDY ORNAMENTAL CLIMBING VINES.

AMPELOPSIS VEITCHI.

BOSTON IVY.—Beautiful, hardy, climbing plant, of Japanese origin. This is one of the finest climbers we know for covering walls, as it clings firmly to the smoothest surface, covering it smoothly with overlapping leaves, which form a perfect mass of foliage. The color is a fresh, deep green in summer, changing to the brightest shade of crimson and yellow in autumn; it is quite hardy, and becomes more popular every year.

CLEMATIS.

Most gorgeous climbers, growing rapidly and flowering profusely after becoming well established. For pillars, trellises, or planting above rock work, the Clematis cannot be excelled.
HENRYI.—Creamy white, large, and fine; very hardy and a strong grower, 75 cents each.
JACKMANI.—The flowers, when fully expanded, are from four to six inches in diameter; intense violet purple, with a rich, velvety appearance; distinctly veined. It flowers continually from July until cut by frost.

HONEYSUCKLES.

HALLEANA.—Color white, changing to yellow; very fragrant; blooms from June till November.
SCARLET TRUMPET.—Strong, rapid grower; blooms very freely the entire season; bright red trumpet-shaped flowers.

WISTERIA.

This is one of the most popular of our hardy vines, growing very rapidly, climbing to a height of fifty feet or more; when in bloom is truly magnificent. It flowers in early spring in long, drooping racines, resembling in size and shape a bunch of grapes.
CHINESE.—Flowers in clusters; pale blue; sometimes gives a second crop of flowers in the fall.

ROSES.

The success that has attended the cultivation of roses during the past few years, and the growing interest in their culture, and the demands made upon us by old patrons, has prompted us to enlarge our business in this direction by the addition of a stock of a carefully selected list of the finest **Hardy Hybrid Perpetual Roses** now before the public. They are easily cared for by planting on *rich soil*, giving clean culture and careful pruning or shortening in just before the buds start in the spring.

We will furnish, carefully packed in damp moss and mailed to any address, for 35 cents each, $3.50 per dozen, strong bushes that will bloom from June to freezing time in autumn. These are not the small, weak, greenhouse roses that are advertised and sold at low rates, but **hardy, well-rooted plants** grown out of doors, and **which will bloom the same season they are planted.** Somewhat larger bushes can be sent by express at same price.

ALFRED COLCOMB.—Bright, clear red; large and full; form globular.

ANNA DE DIESBACH.—Clear rose color; large; cupped.

BARONNE PREVOST.—Pale rose; superb; very large and full.

CHARLES LEFEBVRE.—A free grower; bloom bright crimson; center purplish; large; very double, and of good form; one of the best.

DUKE OF TEEK.—Vigorous grower; bloom, bright crimson scarlet; clear and distinct in color; flowers full and good.

FISHER HOLMES.—Magnificent reddish scarlet, shaded with deep, velvety crimson; very brilliant; large, full, and of good form.

GENERAL JACQUEMINOT.—Brilliant red; velvety; large and double. Fine for massing.

JEAN LIABAND.—Velvety crimson, shaded with black; large, full, and of fine form.

JOHN HOPPER.—Bright rose, with carmine center; large and full; a profuse bloomer, and a standard sort.

LA FRANCE.—Delicate, silvery rose, changing to silvery pink; very large; full of fine globular form; a most constant bloomer; one of the sweetest of roses.

LOUIS VAN HOUTTE.—Crimson maroon; medium size, sometimes large; full; only moderate in vigor, but a very free blooming sort, and thought by many to be the best crimson rose grown.

MABEL MORRISON.—White, sometimes tinged with blush. In the autumn the edges of the petals are often pink. A very valuable white rose.

MADAM GABRIEL LUIZET.—Pale pink; a very delicate and beautiful tint of color; large and full; cupped; very sweet; extra.

MADAM VICTOR VERDER.—Rich, bright, cherry color; large, full, and of fine form; cupped; superb; a most effective rose.

MAGNA CHARTA.—Bright pink, suffused with carmine; very large; full; of good form; habit erect; a profuse bloomer for so fine a variety.

MARIE BAUMANN.—Bright carmine; very large, smooth, and of fine form.

MERVILLE DE LYON.—Pure white, sometimes washed with satin rose; very large, full, and cupped.

PAUL NEYRON.—Dark rose; very large; fine form and habit; one of the largest roses.

PIERRE NOTTING.—Blackish red, shaded with violet; very large and full; form globular; one of the best dark roses.

PRINCE CAMILLE DE ROHAN.—Crimson maroon; very rich and velvety; large and full.

ULRICH BRUNNER FILS.—Bright Oris red; flowers very large and full; a remarkably fine rose.

We can supply many other varieties, yet with the above list well cared for one can come about as near perfection as possible in any amateur rose garden.

CLIMBING ROSES.

(At same prices as above.)

BALTIMORE BELLE.—Fine white, with blush center; very full and double.

QUEEN OF THE PRAIRIE.—Bright rose color; large, compact, and globular; a very profuse bloomer; one of the best.

These are admirably adapted to covering walls, trellises, trees, and stumps, unsightly buildings, etc. Their rapid growth, perfect hardiness, luxuriant foliage, immense clusters of beautiful flowers commend them at once to every one.

Address all orders to

G. H. & J. H. HALE,

South Glastonbury, Conn.

If you want the best Garden you have ever had, you must sow

MAULE'S SEEDS.

There is no question but that Maule's Garden Seeds are unsurpassed. Their present popularity in every county in the United States proves it, for I now have customers at more than 31,000 post-offices. **When once sown, others are not wanted at any price.** My new catalogue for 1889 *is pronounced the most original, beautifully illustrated and readable Seed Catalogue ever published.* It contains among other things, cash prizes for premium vegetables, etc., to the amount of **$3,500. You should not think of purchasing any seeds this Spring before sending for it.** It is mailed free to all enclosing stamp for return postage. Address

WM. HENRY MAULE,
1711 Filbert St. **PHILADELPHIA, PA.**

Geo. H. James, Delavan, Ill.—"I purchased my seeds of you rather late, but nevertheless they gave entire satisfaction. New Cory Corn was immense."

Mark Wright, Seely Creek, N. Y.—"Maule's seeds were all you claim them to be, pure and genuine. I never had nicer Ruta Baga than your Prize Ruta Baga."

Homus Squyer, Mingusville, Montana Ter.—"The garden seeds gave good satisfaction. I had the best garden this year I ever raised. I think the reason was that I planted first-class seeds."

E. C. Miller, Hawk Eye, Mo.—"Maule's seeds are just what you represent them to be. From your Red Wethersfield Onion seed I raised larger onions than from my sets. Nothing can equal your Turner Hybrid Tomato and Flat Dutch Cabbage. White Spine Cucumber is my favorite. A great many people called to admire our Welcome Oats, they cannot be beaten."

Mattie J. Griffin, Philpot, Ky.—"Maule's seeds are all you recommend them to be. I had the best garden this year I ever had. My cabbage, tomatoes, and radishes were the finest I ever saw. Florida Favorite Watermelon was the sweetest I ever ate. I will use no other seeds as long as I can get Maule's."

M. Bossart, Penalosa, Kan.—"I never saw nicer lettuce than the Black Seeded Simpson. One stock made a bunch as large as a large pail. All my neighbors said it beat any thing they had ever seen. My beets and cucumbers are the very best I have ever raised. The largest cabbage I have in my garden is Surehead. I am highly pleased with all the seeds I ever bought of you."

G. A. Gragg, Boone, N. C.—"Maule's seeds are the best we have ever tried. Our cabbage is the finest we ever had at this season of the year."

Anna L. Wooton, Goodrich, Kan.—"Your Surehead Cabbage can't be beat. There will be a big sale for it, your seed stands the drouth so well, and that is what we need here in drouthy Kansas."

Jeremiah Staley, Dayton, Wis.—"We were well pleased with the seeds we received last spring, they were the best we ever had. It was late when they were planted, but we have some Turner Hybrids weighing 1½ pounds and over. The carrots and Marblehead Mammoth Cabbage are the largest I ever saw."

Jas. T. B. Mason, Egin, Idaho.—"I have planted Maule's seeds for the last two seasons, and never planted better, particularly the onion seed."

Jacob W. Lake, Morgantown, Ind.—"The seeds purchased of you were first class. I had an early garden before any of my neighbors."

I. A. Titus, Edsallville, Pa.—"I am satisfied there are no better seeds than Maule's, at least I have never found any. They come up splendid, and my garden never looked better than it does this season."

Mrs. Chas. Gibson, Darlington, Pa.—"I have some Red Wethersfield Onions, raised from seeds bought of you, that are almost as large as tea cups. The other seeds done very well also."

Geo. L. Gordon, Willow Creek, Mon.—"Silver King are the best onions for this climate I have ever seen, Surehead Cabbage was immense. The sweet corn is splendid, and very early. I shall order all my seeds from your establishment hereafter."

S. H. Frisbee, Felt's Mills, N. Y.—"Seeds purchased of you last spring were first-class in every respect. I had Earliest Advance Tomato plants up just 15 days from the time of mailing you my order. My sunflowers from Black Giant seed are immense. The sum and substance of the case is this, as long as I plant garden seeds I shall plant only Maule's."

W. G. Halland, Marble, Ark.—"The seeds received from you last spring, notwithstanding the drouth, done well. Those who bought Maule's seeds were the only persons in my neighborhood that had cabbage. Taking the season into consideration, I cannot speak too highly of your seeds."

J. G. McKain, Shady Grove, Ky.—"Seeds received from you last spring were all, and more, than you recommended them to be. I have the finest garden in this country. Surehead Cabbage cannot be beat. Eclipse Beet takes the rag off the bush for large size and good shape. Cardinal Tomatoes are the finest yet. Red Cluster Pepper is immense, 12 to 20 pods in a bunch. Montreal Muskmelons are superb. I will close by saying, hurrah for Mr. Maule and his garden seeds!"

Wm. H. Crawford, Hillsboro, Ky.—"The seeds I purchased of you last spring gave entire satisfaction. I have bought seeds from several different houses, but Maule's are the largest packets and germinate the best of any I ever purchased. I raised the finest Eclipse Beets I ever saw; they were the wonder of the neighborhood. Many thanks for the premiums sent."

Theodore Mitchell, Ripon, Wis.—"The 5 pounds of Danvers Onions I bought of you last spring gave good satisfaction. I have measured several onions in the patch that measure four inches in diameter. A great many people came to see my onions, and most of them say they never saw such a crop on the ground in their life. Chantenay Carrot I got of you gave equally good satisfaction. I have a splendid crop."

Mrs. Elizabeth Layfield, Bethel, Ohio.—"We were very much pleased with your garden seeds. The Ruby King Pepper, Golden Queen Tomato, and Surehead Cabbage were very fine. Thanks for extras."

John H. Beckham, Bethel, Tenn.—"I was well pleased with the seeds purchased of you last spring. They gave satisfaction in every respect."

Mollie Dixon, Leasburg, N. C.—"I sowed Maule's seeds last spring, and they have given perfect satisfaction. I think they are the best in the world."

A. A. Hyde, Goffs, Kan.—"We were well pleased with Maule's seeds. Mammoth Sweet Corn is very fine. Perfection Muskmelon is indeed perfect for home use."

John Foquet, West Union, Iowa.—"The seeds purchased of you last spring were A No. 1. I would advise every one to buy Wm. Henry Maule's seeds. They are just what you represent them to be."

R. R. Hoykins, Gunn, Miss.—"My garden is as good as heart could wish for. I am well pleased."

R. E. Morris, Howell Sta., Arks.—"The seeds I got from you are first class in every particular. I never fail to get a good stand the first planting, which is a big thing in itself. I used to have to plant my garden two or three times in the spring before I got a good stand until I commenced using your seed. I think Maule's seeds are the best seeds in the world."

F. E. Haver, Etna, Ohio.—"I am well pleased with the seeds I purchased of you last spring. They all came up good and done well. I have the finest garden of vegetables I ever raised."

Miss Susie Hoggatt, Westboro, Ohio.—"We planted Maule's seeds last spring, and the result is we have the best garden we ever had. Turner Hybrid Tomato and Surehead Cabbage cannot be excelled."

B. L. Scott, Roaring Creek, W. Va.—"The seeds I purchased of you were the best I ever sowed. I will recommend Maule's seeds to all my neighbors."

I not only received every letter from which the extracts above are taken, Sept. 24, 1888, **but at least 100 others came to hand,** praising Maule's seeds, in equally glowing terms, which, for **want of room, I am not able to publish.** I never remember receiving a mail, within the last five years, that did not contain words of praise for Maule's seeds. When my customers keep writing me every day for years, thousands of such communications, I cannot help but feel encouraged in my efforts **to supply the gardeners of America with the best seeds that can be produced the world over.**

WM. HENRY MAULE.

BUY YOUR FERTILIZERS FROM HEADQUARTERS, SAVING ALL COMMISSIONS.

LUCIEN SANDERSON,

IMPORTER AND DEALER IN

FERTILIZING MATERIALS,

87 Long Wharf, Opposite N. Y., N. H. & H. Freight Depot,

NEW HAVEN, CONN.

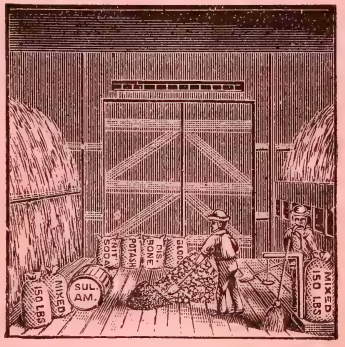
SANDERSON'S

Formulas,

A, B, C, and D,

ARE THE

Leading Fertilizers.



Easily Mixed.

Quick in Action.

Lasting in Effect.

Always Reliable.

Send for "Soils, Crops, Fertilizers," 1889.

SENT FREE ON APPLICATION.

TESTIMONIALS.

LUCIEN SANDERSON, most respectfully: SHAKER STATION, CONN., January 10, 1889.

This is to certify that we used sixteen tons of your unmixed Fertilizing Material last season with great satisfaction and the very best results to crops.

GEORGE WILCOX,
Trustee of Church Family Shakers.

MR. SANDERSON: HAZARDVILLE, CONN., January 11, 1889.

Dear Sir,—I have mixed my fertilizers the past season according to your Formula A. Bought of your agent four tons and used it on corn at the rate of 800 lbs. to the acre, and it gave me a larger crop, far superior to the corn where I used twenty-five to thirty loads of manure to the acre. It is safe to say that home mixing and Sanderson's Formulas stand at the head.

SYLVESTER CHARTER.

LUCIEN SANDERSON: AGAWAM, MASS., Jannary 7, 1889.

Dear Sir,—After trying various kinds of mixed fertilizers, last year we purchased some of your Formula A. On one acre of land we put 450 lbs. of the Formula and planted to Canada Corn. As a result from that acre we obtained 150 bushels of corn and about four tons of stover. On the rest of the piece, with a mixed fertilizer, the yield was but fair. It is needless to say that we are satisfied with the results and have ordered more of the same for this year.

Yours truly, KING BROS.

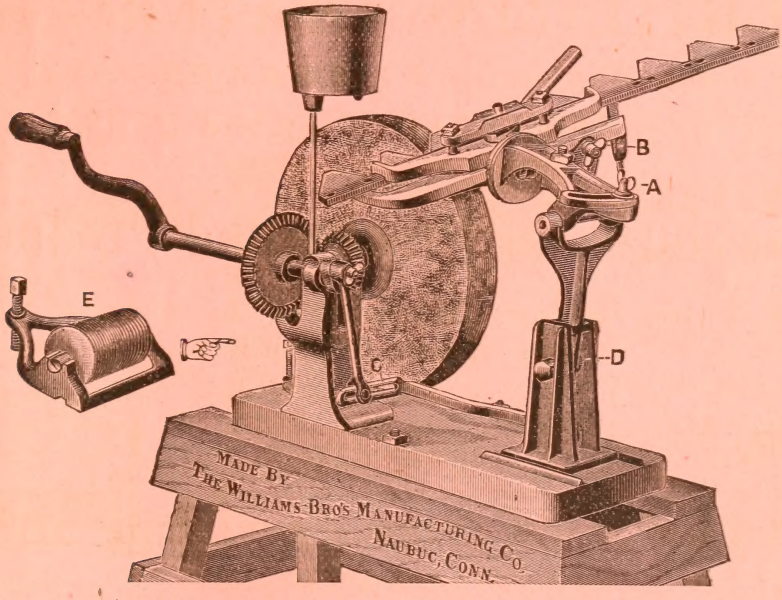
NEW HAVEN CO., CONN., December, 1888.

Have used for the past ten or twelve years chemical fertilizers which were considered of the highest and best grades. Since your manner of furnishing them to the farmers of Connecticut has been known to me, I must say that I have received the most benefit for the least outlay of any I have ever used.

Respectfully, M. S. BALDWIN.

WILLIAMS'
GRINDER FOR MOWER AND REAPER KNIVES

Does its work BETTER, EASIER and QUICKER than a common grindstone, and the knives, ground on a right bevel, cut easier and last longer.



Every machine is warranted, and plain directions accompany each. So simple and easily managed is it, that a boy alone can grind the knives of cutter bars with perfect accuracy, and keep the stone perfectly true by using the steel roller, "E."

The WILLIAMS BROS. MFG. CO., Makers,
GLASTONBURY, NAUBUC P. O., CONN.

GLASTONBURY, CONN.,
Feb. 1, 1889.

THE WILLIAMS BROS. MFG. CO.

GENTS:

I bought of you last summer one of the first Mower and Reaper Knife Grinders which you made, after first giving it a thorough trial. I used it with entire satisfaction through the season, and could not be induced to part with it for ten times its cost. I have never seen any other Grinder worth owning.

WILLIAM T. HALE.

THE WILLIAMS BROS. MFG. CO.,
NAUBUC, CONN.

GENTLEMEN:

I have been using your "Mower and Reaper Knife Grinder" during a portion of this summer, and am delighted with its efficiency. It supplies a desideratum long felt, and should, for its rare merit, become a necessity for every farmer. Its speed of action, facility of adjustment and exactness of grinding, render a task heretofore irksome but a mere diversion.

Hoping that it may meet with a sale commensurate with its merits,

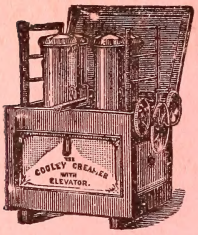
I am, yours truly,

N. W. NOSTRAND,
P. O. Box 93, Whitestone, N. Y.

We are well acquainted with the makers and with farmers who have used these Grinders, and know that their statements are reliable.

G. H. & J. H. HALE.

For Butter Factories on the Cream Gathering Plan, or Private Dairies,



THE

COOLEY CREAMER PROCESS

Excels all other Methods.

SEE THE RECORD:

13 GOLD MEDALS AND 22 SILVER MEDALS

AWARDED FOR

Superiority of Process and Product

Used by the Leading Dairymen of this Country and Europe and 65,000 others.

Three First Premiums, Grand Sweepstakes, Dairy Sweepstakes, at Vermont Dairymen's Association, January, 1889. Sweepstakes at Fat Stock Show, Chicago, November, 1888. Gold Medal on apparatus, at Richmond, Va., Exposition, October and November, 1888. Gold Medal on product, at Richmond, Va., Exposition, October and November, 1888. Gold Medal on product, at Bay State Fair, Springfield, Mass., October, 1888. Gold Medal on product, Delaware State Fair, at Dover, October, 1888. Gold Medal on product, at Maine State Fair, 1888. Gold Medal on product, at New Jersey State Fair, 1888. Four First Premiums out of a possible six, at Buffalo, N. Y., Exposition, September, 1888. Five First Premiums out of a possible seven, at Bay State Fair, October, 1888. First Premium on factory butter, at Maine State Fair, 1888. First Premium on factory butter, at New Hampshire State Grange Fair, 1888. First Premium and Sweepstakes, Vermont State Fair, 1888. Gold Medal, Paris (France) Exposition, 1879 Gold Medal, Paris (France) Exposition, 1882, after *tests of six weeks* at the Palace of Industry in competition with all the leading systems of the world. Gold Medal at Royal Agricultural Exhibition, London, England, 1879. Gold Medal and Sweepstakes, at International Dairy Fair, N. Y., 1878 and 1879. Gold Medal, Berks Co., Pa., 1885. The Higgins Salt Sweepstakes of $250, and the Ashton Salt Sweepstakes of $125, at International Dairy Fair, New York, 1878.

CONTINUED VICTORIES.

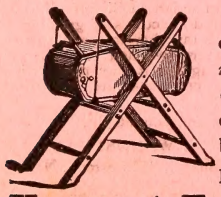
The Cooley Creamer again proves its superiority over every other apparatus as a cream raiser and separator.

The analysis of the skimmed milk at the test at the Granite State Dairymen's Association's annual meeting at Hanover, N. H. January 8, 9, and 10, 1889, shows that the Cooley Creamer got the cream from the milk the most thoroughly; the next nearest competitor had 12½ per cent. more butter fat left in the skimmed milk. The Centrifugal Separator had 32½ per cent. more butter fat left in the skimmed milk, proving conclusively that the Cooley Creamer is the best cream raiser or separator.

This agrees with the test made by the committee at Amherst, Mass., Creamery in 1882, when the skimmed milk from the Cooley Creamer, analyzed by Prof. Goessman of Mass. Agricultural College, showed that the Cooley Submerged Creamer was the best cream raiser or separator.

Also with Prof. Short of Wisconsin Agricultural College, who tells the farmers of his State: "Submerged setting of milk is preferable to any other system, as, if the milk is submerged promptly and the water kept cold, as soon as drawn from the cow, it produces more cream than by any other process, and prevents contamination by any impurities in the atmosphere."

The above confirm all public tests. The Cooley Creamer always shows that it extracts the cream from the milk more thoroughly than any other apparatus, and consequently makes the most butter when the cream is properly handled.



Remember that the COOLEY CREAMER has a *process* which no others can legally use; others imitate construction, but cannot use process. *Do not pledge your milk*, until you have examined into the *Cooley System of Cream Gathering*. It is less labor, less expense, and pays better net proceeds. A full line of engines, cream vats, churns, and everything used in butter factories or private dairies. Send for illustrated circulars before purchasing of others.

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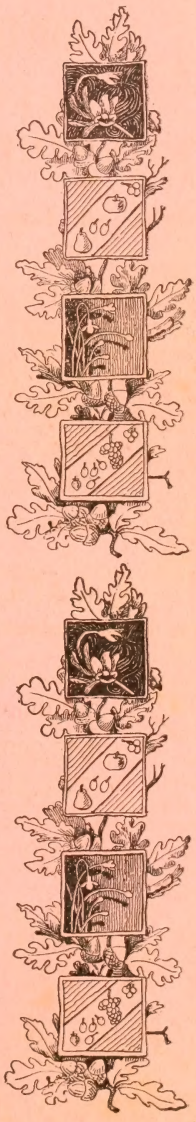

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